CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

INTEGRATED ENERGY POLICY REPORT

AND TRANSPORTATION COMMITTEES

JOINT COMMITTEES WORKSHOP

ON

CALIFORNIA'S PETROLEUM INFRASTRUCTURE NEEDS

CALIFORNIA ENERGY COMMISSION

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APPEARANCES

COMMITTEE MEMBERS PRESENT

John Geesman, Commissioner and Presiding Member, IEPR

James Boyd, Commissioner and Associate Member, IEPR, and Presiding Member, Transportation

Jackalyne Pfannenstiel, Commissioner and Associate Member, Transportation

Melissa Jones, Adviser to Commissioner Geesman

Michael Smith, Adviser to Commissioner Boyd

STAFF PRESENT

Gordon Schremp

Chris Kavalec

ALSO PRESENT

Dileep Sirur, Baker & O'Brien, Inc.

Joe Sparano, WSPA

PUBLIC COMMENT

James Schepens, Oiltanking

Dave Hackett, Stillwater Associates LLC

Dominic Ferrari, Pacific Energy Partners, LP

Mohsen Nazemi, SCAQMD

Nancy Wolfe, State Fire Marshal's Office

I N D E X

P R O C E E D I N G S

COMMISSIONER GEESMAN: This is a workshop of the California Energy Commission's 2005 Integrated Energy Policy Report Committee. Today there are three of us here, so on an informal basis it will be a joint workshop of the Commission's Integrated Energy Policy Report Committee and the Commission's Transportation Committee.

I'm John Geesman, the Presiding Member of the Integrated Energy Policy Report Committee. To my left is Commissioner Jim Boyd, the Associate Member of the Integrated Energy Policy Report Committee and the Presiding Member of the Commission's Transportation Committee.

And to his left is Commissioner Jackalyne Pfannenstiel, the Associate Member of the Commission's Transportation Committee.

To my right is Melissa Jones, my Staff Adviser. I don't think we need much introduction today. The focus of the day, I suspect, will be on the staff report, An Assessment of California's Petroleum Infrastructure Needs.

I see a lot of familiar faces in the audience, so I think you've followed the

development of our interest in this issue over the last couple of years.

With that, let me ask if Commissioner Boyd or Commissioner Pfannenstiel have any remarks.

COMMISSIONER BOYD: Thank you, no. I think this is such a familiar topic that you've pretty well cover it. Thanks.

COMMISSIONER GEESMAN: Gordon, it's all yours.

MR. SCHREMP: Thank you, Commissioner Geesman. Welcome everybody today. It's a bit early, 9:00, and we appreciate everybody who had to travel up here this morning. We're glad you could make it and look forward to your input.

Without further ado, I'll go through my presentation. It'll be a combination of myself and Chris Kavalec. Chris Kavalec will be touching on the demand forecast as well as the outlook for projection of imports above crude oil and petroleum products, what we call clean fuels.

Here's a broad overview of the topics we'll be covering this morning, and we'll try to make them as brief as possible.

I'll start of with petroleum

infrastructure. I'll give you a brief description of the main elements. In our report we've broken those down into three basic elements. We call them the refineries, the pipeline systems and marine infrastructure -- and storage tanks are integral all throughout the infrastructure.

And two important points, crude oil and clean products are not interchangeable petroleum assets, meaning you can't just use crude tanks for gasoline and vice versa. So they are separate and distinct. And unlike electricity, the petroleum system is not connected directly with pipelines in northern and southern California, there is a break there.

Refineries. The central nervous system if you will. All the processing of crude oil occurs at this location. Received by pipeline and marine vessels at the facility itself.

And these facilities, when not performing maintenance or experiencing unplanned outage, are operating continuously, usually at or near maximum capacity.

After the crude oil process it goes through a network of petroleum product pipelines, to over 70 terminals located throughout the state.

Refineries also dispense a portion of their clean products at terminals located and connected to the refineries.

The pipeline infrastructure and marine movement map on slide 7 -- the blue line represents movements by barge and proud tankers, as well as crude vessels, and the blue line on the Columbia River is barge movement.

And you can see there are refineries up in the Pacific Northwest that bring project down to California, and then the pipeline systems represented in black lines, you see we do send or have pipelines that are connected to both Nevada and Arizona.

About 63 percent of the products that go to Arizona come from the California side, and about 100 percent that go into Nevada, into Reno and Las Vegas.

And there are some of the numbers, I'll skip by that.

Marine facilities. Safe harbors, usually deep waters safe enough for the vessels. Southern California has deeper water access compared to northern California.

Some of the important elements of the

marine infrastructure are that most refiners have their own proprietary marine berth, which aids in their ability to schedule crude oil deliveries and petroleum product deliveries.

Third party storers, though, is very important for access to other marketers as well as majors to get both into California as well as to move products from northern California down to southern California.

The storage tanks, as I mentioned, are all throughout this system. They are used for a variety of purposes -- storing unfinished product between units of the refinery, crude oil, product before it gets shipped into the pipeline or loaded on to the barge, there's many different types of storage applications.

And something we call strategy stores, where usually gasoline is stored and held in storage until there is an unplanned outage and then you have that supply available to sell into the rising market.

And some other terms of art if you will. Dedicated drain-dry tanks. The note about drain-dry tanks is we're seeing most of the new construction does involved this type of tank.

What it means is you can take all the product down to the very bottom and then change the service -- go from gasoline to diesel to jet fuel, etc. So this increases the flexibility and versatility, that's pretty important.

Crude oil. I'll just give some of the high points in crude oil now. About 84 million barrels a day, according to the International Energy Administration. That's pretty significant.

The United States, not quite 16 million barrels a day. And the United States imports a bit more crude oil than California does -- 65 percent versus 58 percent.

And as you can see in California, most of our crude oil is from indigenous production and then the imports are foreign and Alaska, in order of importance.

And Chris will talk a little bit more in his presentation about how production is declining, and what that means for imports of crude oil as well as what we refer to as refinery creep, when modest expansion projects are occurring at refineries when they perform plant maintenance, and in some cases larger projects.

A visual on the crude oil production in

the United States, including California. As you can see, we do have a decline. Alaska has declined the most over this period, about 51 percent, followed by the rest of the United States and California, an identical 34 percent decline over this time period.

A little more focused look at California. You happen to see that there was a bit of a peak that occurred in 1995, that's what the fed OCS refers to as Outer Continental Shelf, that's some drilling outside the state waters.

And that actually peaked and then has leveled off. But most of the production in California is from what we call state onshore. A lot of this located down in the southern San Joaquin Valley.

Now California production, from more of a peak in 1998, has declined about 19 percent.

One high point from this slide is I have 43 percent from enhanced oil recovery. That's your creating steam, injecting it into the ground, the crude oil is very viscous and difficult to pump and move into pipelines, and so this is an important recovery technique in California, quite different from the rest of the US or other places

in the world.

Alaska did slow in its' decline of production, and leveled off, and then has continued again. There's been some renewed efforts up in Alaska to drill for more crude oil.

But it is interesting to note that 19 percent decline in production in California even though the price has gone up significantly over the same time period.

I'll transition now, some brief slides on imports and exports.

This is a combination of both imports, exports, and what we call intrastate movements. The reason we have combined all these numbers together is because this is a better measure of what the load or use in the marine facility is.

Because a barge, whether it's loading or unloading, is occupying space and time at a marine berth. And in the main case it's using similar pipeline systems.

Now, you'll see over this time period that they've gone up and down. There's some variability. There are various factors that can affect the importation of clean products or components, and that has to do with refinery

operations.

If refineries don't operate very well in a particular year you'll see more imports. If they operate very well you'll see less imports. And I've added onto this slide, the light blue color in slide 18 is the amount of ethanol we're receiving by rail.

And that's important because we have a lot of MBTE, about 11 percent by volume, then we switched. In 2003 half the industry was without MBTE, and in 2004 the entire industry. And most of that does come in via rail, from the midwest, about 20 million barrels.

The following three slides are just some additional background information. Some of the numbers and statistics you see from there.

Main trend is that imports are climbing and exports are declining. These are for clean products.

Crude oil, a general upward trend. 2004 was down slightly compared to 2003. This was primarily due to heavier than normal refinery planned maintenance, so less crude oil was run through the refineries at this time.

So the 1996-2004 change, there's only

about ten and a half percent, not a significant amount. But what you can see from there is that the foreign sources of crude oil are climbing rather quickly.

We expect that trend to continue, and Chris will do a more thorough job of talking about the change in crude oil imports moving to the future. Here's, once again, some of the numbers.

And at this time I'd be happy to answer any questions, or we can let Chris proceed with his demand forecast. Okay.

MR. KAVALEC: Good morning. I'm going to discuss our import projections for clean fuels, meaning gasoline, diesel and jet fuel, as well as crude oil, which are critical in determining how much infrastructure we're going to need.

To project imports of a product you need to have a demand forecast and you need to have a supply forecast. Supply meaning supply produced in California for California.

So first we need a forecast for demand for clean fuels. And luckily we have a transportation energy forecast available that was done for the 2005 Integrated Energy Policy Report, and so I'll say a few things about that.

The transportation energy forecast covers the fuel types you see there on the left. We're mainly interested in the big three here, gasoline, diesel, and commercial jet fuel. And you see the sectors that are covered are the different uses covered by the transportation energy forecast.

Some of the key assumptions. Gasoline and diesel fuel prices come from the most recent Energy Information Administration crude oil price forecasts. This was turned into a California forecast by using historical California retail and wholesale margins.

A little bit over $2.00 in 2004 for gasoline, going up to roughly $2.25 by 2025, with diesel prices a little bit lower. Gasoline prices are obviously higher now, and if they stayed at a high level through the rest of this year and onward then you would expect there to be less demand for gasoline and diesel and therefore less imports and infrastructure required.

Jet fuel prices are based on the most recent FAA forecasts.

COMMISSIONER GEESMAN: Chris, let me ask you the extent to which you can quantify those

price elasticity assumptions?

MR. KAVALEC: Well, in our models you have an elasticity of roughly 10 percent. So if you were to increase gasoline prices another 10 percent you'd have a one percent drop in demand, roughly.

Okay, below that some econ demo rates. The key one here is the population growth rate. It's relatively low this time. This is a forecasting that comes from the Department of Finance, and I'll say more about that in a minute.

Forecast for hybrids is consistent with what the Air Resources Board expects will be on the road, so that the auto manufacturers can meet the zero emission vehicle requirements.

Our diesel experts tell us that diesel light duty vehicles will be available starting in 2008. And we have two forecasts, a base case forecast that assumes implementation of greenhouse gas regulations, and an alternative forecast that doesn't.

And here are the results. You see the gasoline forecasts at the top. And you can see the impact of the Pavley greenhouse gas regulations. Base case gasoline demand flattens

and even declines before beginning to increase again towards the end of the forecast period.

And by 2025 you have a difference between the two forecasts of over two billion gallons.

At the bottom, jet fuel and diesel forecasts. The diesel forecast shown here is from the base case. The alternative case gives slightly higher diesel because the greenhouse gas regulations also affect diesel light duty vehicles, given them higher fuel efficiency. But the two are so close that I didn't want to crowd the graph with both of them, so I only put the one in.

Some particulars. In the base case obviously there's almost no growth in gasoline demand. And in the alternative case a little bit less than one percent per year on average.

Diesel and jet fuel grow by an average of a little bit less than three percent. And average fuel efficiency rises by around 33 percent in the base case forecast due to the greenhouse gas regulations and by around ten percent in the alternative case.

COMMISSIONER GEESMAN: Could I ask yo

Chris, in terms of -- and I guess tomorrow we'll be getting more into the forecast presentation, so I don't want to dwell on it too long -- but in terms of the base case and the assumed gains in average fuel efficiency creating an average growth rate of .1 percent per year, how does that compare in terms of growth in gasoline demand to the late 70's, early 80's, maybe even to more the mid-80's, when we had a similar improvement in fuel efficiency caused by CAFE standards?

MR. KAVALEC: I would have to look at that. And that's something I could do for tomorrow.

COMMISSIONER GEESMAN: Yeah, you might mark that down as something to --.

MR. KAVALEC: Yeah, and the average rate over the last 20 years overall has been around two percent and higher.

Okay. In comparison with our last forecast, that we did for the 2003 IEPR, gasoline growth is lower, not just in the base case but in the alternative case as well.

And this is important because reduced gasoline demand reduces import and infrastructure requirements.

And three reasons for this -- lower projected population growth, coming to us from the Department of Finance. About 1.1 percent in this forecast versus somewhere around 1.5 percent on average per year in the 2003 forecasts.

More light duty diesel vehicle sales. Our experts tell us that manufacturers are more bullish on diesel light duty vehicles and will be ready to offer a whole host of models starting in 2008.

And there's a slight increase in fuel efficiency for conventional gasoline vehicles that wasn't included and incorporated in the last forecast. And this comes to us from our expert consultants on these matters, who claims that new fuel efficiency technologies are going to be available and incorporated into vehicles over the forecast period.

COMMISSIONER GEESMAN: Let me ask you, with respect to those population assumptions - and again, this may be better left for tomorrow in any detail, but the way you utilize population assumptions in your model, does it make any difference where in the state population growth occurs? Or are you simply driven by a statewide

variable?

MR. KAVALEC: This is all driven by statewide. We have the capability to do regional forecasts but we didn't do them for the 2005 IEPR.

COMMISSIONER GEESMAN: Okay. Because I suspect we'll be getting into these population numbers in our electricity demand forecast in some detail, and I do know that there are parts of the state where there is quite a bit of dispute as to whether the Department of Finance numbers are the most accurate available.

MR. KAVALEC: That's true. And low population growth comes apparently mainly from very low growth in the LA Basin and higher growth in the Bay Area.

So that's our clean fuel demand. Before I get to supply of clean fuels we'll go into our crude oil import projection.

The demand of this product comes from crude oil input to refiners. And the top curve on the left hand side shows the historical level of crude oil inputs.

To project this out to the future, we assumed the rate of growth to be given by the average annual growth rate in crude oil processing

capacity for refiners, which in recent years was around one-third of one percent. So that's how we got the dotted line on the top.

Supply from California obviously comes from extraction of crude oil from onshore and offshore wells. The left hand side on the bottom curve shows historical levels of distraction, and as you can see they're declining.

To project this out into the future we assumed that the extraction would decline by the average annual rate over the last 20 years, which is around two percent. So that's how we got the bottom dotted line.

So now we have a supply and a demand, and the difference between the two gives up projections for imports. As you can see, there are 380 million barrels in 2004, increasing to around 460 million by 2015, and 520 million by 2025.

COMMISSIONER GEESMAN: I guess a concern I have there is that, obviously you're input experience over the last 20 years has been fairly volatile.

MR. KAVALEC: Yes it has.

COMMISSIONER GEESMAN: I'd expect

there's a fairly significant standard deviation around that straight line or smooth line that you project out in 20 years. From a policy making standpoint shouldn't we take into account the volatility of that assumption?

MR. KAVALEC: Well, a little bit later I'll talk about the ramifications of higher growth in crude oil input, but this is the only case that we have in the report. We could obviously add two or three more cases looking at different growth rates, but we only have the one.

And we welcome any input from those in the industry here today that want to talk about projections of crude oil input.

MS. JONES: Chris, if I could just ask, there's a note here that the numbers were revised, and I noted from the report that they have dropped a little bit. Can you explain the difference?

MR. KAVALEC: That came from a discrepancy between crude oil production in California and crude oil production in California that went to input for refiners. The reason for the difference between the two, I'm not sure. But that's, it's a difference of about ten million barrels, and that's where that came from.

MS. JONES: Okay, thanks.

MR. KAVALEC: Okay, this slide just gives the details that I went over in the last slide.

And back to clean fuels. We have our demand, and now we need a supply produced in California for California to give us a projection for imports.

First though, the two curves at the top there show the demand for clean fuels, gasoline, diesel and jet fuel. And that's just the sum of the individual forecast that I showed in the previous slide. So that's just the sum of the three.

Our supply is a projection of California refinery production of clean fuels. And to get this we started with the 0.3 percent growth in crude oil processing capacity, but then recognized that refiners have been increasing capacity in other units, such as crackers, at a higher rate in crude oil processing capacity.

So to incorporate that we made the projection for refined supply equal to 0.5 percent, slightly higher than 0.3 percent. That's what we refer to as refinery creep.

COMMISSIONER GEESMAN: How does that compare with historical rate?

MR. KAVALEC: Would you know that offhand, Gordon?

MR. SCHREMP: The historical rate for the capacity change has been in that range, about .4 to .6 percent. We have seen output from refineries grow at a higher rate on an annual basis then that number. That is being accomplished by additional imports of blending components that are converted into more gasoline that they show as production.

MS. JONES: In the previous slide you indicated that from '96 to 2004 it was about .3 percent?

MR. KAVALEC: Right, that's where that crude oil processing capacity increase projection came from. And again, we added to that slightly to take into account increases in other types of processing capacity to give us 0.5 percent.

Now there are some that would say that it's a higher number, and I will talk about the impacts of having a higher growth rate for refinery creep in a minute.

Okay, so that gives us our bottom line

there, projected refined supply increasing at a rate of 0.5 percent per year. The dotted line above that shows the difference supply and demand in 2003.

So anything above that dotted line and below the demand curves gives a projected increase in imports. For example, in 2025, under the base case, imports are projected to increase by three billion gallons, and in the alternate case by roughly double that.

This slide just gives the details of what I went over in the last slide.

And obviously there's a lot of uncertainty here. And there is a tradeoff between crude oil and clean fuels imports. Higher refinery creep, in other words, more California production of clean fuels, means less imports of clean fuels. However, it also means more imports of crude oil. So there's a tradeoff there.

A couple of examples of what happens when we modify our supply and demand forecast slightly. If we were to assume a one percent annual increase in crude oil distillation capacity, instead of 0.3 percent, along with a 3.5 percent annual decline in extraction instead of

two percent -- the 3.5 percent is used here in this example because it's the annual average decline rate over the last five years rather than the last 20 years.

The combination of these two would increase crude oil imports 30 percent by 2025, from 520 million barrels that we saw in a previous slide to around 675 million barrels.

Another example. If the greenhouse gas regulations are not implemented and growth in clean fuels is around two percent rather than one percent or less -- and this two percent, as I mentioned, is roughly the average over the last 20 years -- imports of clean fuels would double in the base case and rise by 50 percent in the alternate demand case.

This slide gives a summary of the projected increases in imports broken out into the Bay Area and the LA Basin. The way that we did this was to assume that the current proportions of import arrivals into the LA Basin versus the Bay Area remains constant.

And those proportions are 60 percent crude oil to LA, 40 percent to the Bay Area, and 80 percent clean fuels into the LA Basin and 20

percent into the Bay Area.

So that's our projections for imports that we used in this report to try and determine how much infrastructure we're going to need and I'm going to turn it back over to Gordon now, who will talk about our ability to accommodate these imports.

COMMISSIONER GEESMAN: One last question, Chris. Your population numbers, or your demand projection for that matter, what did you assume for Arizona and Nevada?

MR. KAVALEC: I'm sorry, for growth rate in population?

COMMISSIONER GEESMAN: Yeah.

MR. KAVALEC: We didn't include any changes in impacts from Arizona or Nevada. They weren't part of the forecast.

COMMISSIONER GEESMAN: So they just stayed at their current level of demand?

MR. KAVALEC: Right.

COMMISSIONER GEESMAN: And that was held steady throughout the forecast period?

MR. KAVALEC: Well, we do mention that in the report. Some of the imports that come into California are, their actual final destination is

Arizona or Nevada. So to the extent that growth in Arizona and Nevada increases, that increases the import requirements at our ports.

COMMISSIONER GEESMAN: But you haven't currently quantified --?

MR. KAVALEC: We didn't quantify that, no.

COMMISSIONER GEESMAN: Okay.

COMMISSIONER BOYD: Building on that, is that a safe assumption? Looking at the way southern Nevada and Arizona have been growing in the last few years, it seems to me that just hanging on to previous levels of exports from our state, it's going to be a little tough.

MR. KAVALEC: Well, two things are happening in Arizona. One is the Longhorn Pipeline coming from Texas, which should reduce the amount of imports required from California.

And the other thing is the possibility of a refinery opening up in Arizona.

COMMISSIONER GEESMAN: Okay, Gordon.

COMMISSIONER BOYD: I'm glad you said possibility.

MR. SCHREMP: Thank you, Chris. Chris mentioned a little while ago about greater use of

light duty diesel vehicles, and it just so happens, outside our very doorsteps here, we have a couple of examples of light duty diesel vehicles that people can actually take for a spin.

A good test is probably taking them up to Tahoe, you know, with the steep climb. So we welcome anybody to try that. Of course that's a joke.

I'll talk about some of the good news now. Work has been underway recently and more projects are under construction, so this is good news. And I'll go through some of those same categories.

A couple of examples in the refinery sector happen to be Paramount Petroleum in southern California. They have a project that's nearing completion. They'll be able to produce both clean diesel and clean gasoline, meeting California specifications, by the third quarter of 2005.

Big West, or Flying J, is a new refinery owner in Bakersfield. They're the company that purchased the south Bakersfield facility and they're operating it. They are also looking at expansive plans for that facility, about 10,000

barrels a day incremental gasoline, and about 12,000 barrels a day for diesel fuel.

This is the Kinder Morgan Pipeline Project. This was the new pipeline constructed in Concord and West Sacramento. An important, a couple of key notes from this slide are the time it took to obtain their permit to construct, 35 months. That's a significant period of time.

And these types of projects, across multiple jurisdictions, can extend the time period to acquire permits. Although it should be noted, Kinder Morgan had another project where they built three storage tanks at one location, and it took three years to construct those tanks. So, other permits can take an extended period of time.

Marine facilities. This is what's referred to, on slide 39, as Pier 400 in the Port of Los Angeles. Most of this area now is occupied by containers. This is an older photograph, and there are about 15 acres left to put in a facility for some petroleum infrastructure.

One of the companies is Pacific Energy. They have a project, they are moving through the permit process, to develop a site at Pier 400.

Oiltanking, another company, is also looking at a berth in the port of Long Beach. So both of these projects are looking at crude oil import infrastructure developing, which -- as you saw from Chris' slide -- is the lion's share of the incremental crude oil is expected to go into the Port of Los Angeles and Long Beach.

But there is, has been, and continues to be pressure to delay or even block these types of projects, which could have an impact on crude oil availability for refiners.

COMMISSIONER BOYD: Gordon?

MR. SCHREMP: Yes.

COMMISSIONER BOYD: If these folks are successful in developing Pier 400, is there adequate existing infrastructure to get the increased import out of the port and to the places it needs to go?

MR. SCHREMP: Speaking to the Pacific Energy project -- and we have somebody here who could answer some additional, more detailed question -- it's my understanding that the project would be a marine berth, associated pipes, storage tanks located at multiple points at Pier 400 and other Port of Los Angeles property.

So yes, the plan is to build that appropriate infrastructure, not only to offload the vessel sufficiently, but to get into the existing infrastructure of crude oil pipelines. That is part of the project, yes.

COMMISSIONER BOYD: Thank you.

MR. SCHREMP: This photograph is of the Kaneb Martinez facility. It's in northern California. The facility has already constructed 300,000 additional barrels of clean fuel storage capability, and two more tanks, one you see here and another footprint in the foreground, an additional 400,000 barrels.

Now this facility, I would say, is rather unique in its permit situation. They have an approved Environmental Impact Report that was developed a number of years ago, and what they have to do to obtain a permit to construct is go to the city for a land use permit.

And that process is certainly quite abbreviated and is much easier than another facility might encounter if it was to attempt an expansion of storage tanks or refineries or pipelines, etc.

Now there have been some other storage

projects. I mentioned the jet fuel storage tank delay, and then there is also, this next example is in southern California, the Kinder Morgan Carson Facility.

And the area outlined in the red is the footprint of where their additional storage tanks, or the majority of those additional storage tanks will be constructed.

The project was delayed between 9 and 12 months, but construction is now underway for the initial four tanks, a total capacity of about 320,000 barrels. And those will also be for use of clean fuels.

Chris showed a slide a bit earlier that looked at the incremental volume going through the system that's anticipated in 2015 and 2025. Here we're showing the clean fuels.

Now, before I talk a little bit more about that, I'll mention on the crude oil, we don't have a slide there for the crude oil tank capacity need. It's our belief that the project, either one of projects in southern California, if they are constructed with their associated tankage, that should be enough to handle the incremental demand of crude oil between now and

2025.

And the assumption is, and an important assumption, no other petroleum assets are lost over that time period.

COMMISSIONER BOYD: Well, the assumption also is that we find your two forecasts reasonable in bounding the range of likely possibilities, and we accept your holding the Arizona and Nevada demand constant. And there's probably a number of other different assumptions embedded in that statement as well.

MR. SCHREMP: That's correct, Commissioner Geesman. And as Chris has pointed out, changing those assumptions can increase these numbers, and rather significantly, so that is correct.

COMMISSIONER GEESMAN: I wonder, on the storage area, is there a standard unit of measurement that we can use to try and bring a little bit more meaning to this table?

MR. SCHREMP: Well, I think that, how the numbers were created, we were looking at the average of unloading rates of the vessels through the current system, looking at the additional load and how much additional storage tank capacity.

If you change your assumption on the size of the vessels that are offloading, the amount of time the material stays in the storage tank before going on to either be processed or into the pipeline, these numbers can be larger.

I'll give you an example. The crude oil storage tanks, especially in the Bay Area, allow refineries to have pipeline connections to crude oil fields. That is what we call a more rakeable volume of delivery of crude oil.

First is receiving a large vessel that has to be offloaded rather quickly and efficiently. So we're seeing not only a shift to higher incremental volumes of crude oil, but they will require actually larger tankage because of the size of the vessels that are coming in. This has been in particular for southern California, which has deeper water compared to northern California.

So to put these tank numbers in context, the total capacity in California for clean products has been upwards of 25 million barrels. So these seem to be small, but you also have to take into consideration that a lot of that storage tank capacity for what we call clean fuels is tied

up in the refineries for the storage of intermediate products that they're producing when they operate their processing units.

That kind of storage capacity is not available for additional imports. So you have to look at the marine facilities.

Now in the Bay Area we have what we call third party storage. That's where we're seeing a lot of the activity for new construction, that's where we're seeing new entrants into the market bring clean products into California.

And the storage capacity additions are significant that have already occurred at the Martinez facility. You're looking at I think at least an increase of 50 percent at that one facility alone. So that is rather significant, to put some of these figures into better context.

COMMISSIONER GEESMAN: Okay, but I want to look at the column that says "LA Basin." And if I looked at your last slide, the Kinder Morgan project, you suggested could add one and a half million barrels of additional capacity over a 15 year period.

Is the size of that project, or the acreage required, a standard that you're likely to

have to replicate to get 3.4 or 6.0 million of additional barrels of storage by 2015?

MR. SCHREMP: Well, I tell you what, we'll go one slide forward which I think will help address the questions you're asking about, we've seen these new projects underway, we have a forecast here for clean product storage capacity. When you put the two together, is that enough?

Or does there need to be more? And that's a very good question.

COMMISSIONER GEESMAN: Yeah, but somebody's going to ask me how many tanks, how much acreage. And what I'm trying to press you guys to do is help me develop that answer in a quantitatively rational way.

MR. SCHREMP: Okay. The first bullet here is an attempt to address the quantification of the storage tank incremental need, beyond what is already occurring and what has already been permitted to construct.

So as you can see, in southern California in the Los Angeles Basin, there still needs to be a significant build of clean product storage tankage.

COMMISSIONER GEESMAN: But I don't know

how many tanks, and I don't know how much acreage.

MR. SCHREMP: For clean products tanks you'll see tanks ranged from anywhere from 50,000 barrels upwards of 200,000 barrels. And, depending on the location, you raise a very good point about availability of land space.

Storage tanks have been, and we feel will most likely continue, on land that is currently being occupied by a tenant that does have storage tanks.

On the Kinder Morgan photograph of Carson you saw that footprint was in their own property, but land is being used up and they don't have a lot of room for additional expansion. And Kinder Morgan can possibly address that today.

We're looking at a site in Martinez. Yes, they have additional land to expand, more so than down in southern California, and that's the case for other facilities located in northern California, land is not as much a premium nor is the close proximity to residences that have placed additional pressure on the facilities in southern California.

So we think that, certainly in northern California, a modest amount of incremental storage

tank capacity, 700,000 barrels, can be handled with the existing land available there.

In southern California we have not specifically looked at footprint analysis to see exactly where those tanks will go and is there actual land space available.

And I would say, just qualitatively speaking, comparing the two, that would be a bit more challenging in southern California, especially with some of the pressure that has come on these assets and some of the assets that have already been shut down and the tanks removed.

COMMISSIONER GEESMAN: Well, I'm not certain that it's our task to do, but I would think that somewhere between ourselves and the State Lands Commission and the ports of Los Angeles and Long Beach somebody better do it.

?The magnitude of problem that you're projecting, even under your favorable forecast assumption, would appear to be large enough to compel somebody to do that footprint analysis.

MR. SCHREMP: That's a good point.

COMMISSIONER BOYD: Gordon, how much of the Kinder Morgan project is assumed already in your first bullet, because it says "assuming

existing infrastructure." Did you include the four tanks leased in your assumption, or is any of that in there?

MR. SCHREMP: We assumed that storage tanks under construction and projects that have been permitted are going to be built as forecast.

In addition to that, we assumed for the Martinez facility, the Kaneb facility, they have additional capacity that they're allowed to build with just obtaining a use permit. We expect those tanks to be constructed as well, even though they're currently not under construction.

We expect one large crude oil facility to be constructed in southern California, and we assume that will be constructed.

So those numbers, yes, for the clean products and for the crude oil, are embedded in our assumptions. And what is remaining here for the clean products is still significant in size for additional storage tank capacity.

COMMISSIONER BOYD: Thank you.

MR. SCHREMP: And I think the final point is, even though there is not a proponent that is looking at building a crude oil import facility in northern California it does not mean

there is not a need.

We think the need in northern California is a bit slower growth spread out among several refiners who already have proprietary dockage. There is a bit of a problem with the amount of water or depth of water, which limits the size of the vessels you can bring in.

And I'll talk about that in just a minute. So there is a significant difference between the Bay Area and Los Angeles. But because no proponent has come forward at this time doesn't mean that that won't happen, nor does it not mean that individual refineries will build a couple of storage tanks to handle additional crude oil imports at their own proprietary dock.

COMMISSIONER BOYD: Gordon?

MR. SCHREMP: Yes.

COMMISSIONER BOYD: Another question. Your first bullet is predicated on the assumption that existing petroleum infrastructure capacity is retained. How secure ar you in that assumption, how good an assumption is that? Is there jeopardy for existing petroleum infrastructure, either north of -- well, the first bullet's LA, LA seems to be the choke point here.

MR. SCHREMP: Commissioner Boyd, that's a good question, and yes, I can't stand here and say that it will be retained because we have some recent examples of some storage tank capacity that has, as I mentioned, gone away, been removed.

We have had some recent examples of lease renewals to continue operation as a petroleum infrastructure facility, that lease renewal being denied.

So I think there's a recent track record that gives us pause for concern that maybe additional closures could occur which would certainly affect the projected needs for storage tanks down in the Los Angeles Basin.

COMMISSIONER BOYD: I think your report also indicated that the MOTEMS requirements were likely to result in the cancellation or abandonment of some of this infrastructure.

MR. SCHREMP: Yes, the Marine Oil Terminal and Engineering Maintenance Standards, MOTEMS, is a regulation that's going to be enforced by the California State Lands Commission. It's basically bringing in marine terminals up to appropriate engineering and safety standards to prevent spills.

The regulation has been crafted to go into effect over a longer period of time to diminish the opportunity to interfere with the commerce of the movement of petroleum products.

According to the State Lands Commission information the vast majority of the crude oil import facilities are rated in what they call a good category, meaning very little modifications anticipated to meet the new standards.

For clean fuels, about 80 percent, or 75, are in the good category. And the other 25 to 20 percent is facilities that need significant upgrading.

Yes, it is possible that through that process business decisions could be made to shut down a marine facility. We'll have to see how that plays out.

But in total we think the minority of the petroleum assets are the ones that may require significant upgrades. The vast majority will not as a result of that standard.

These two bullets, the first one should be obvious from our recent discussion. And I want to transition now to some of the concerns and problems that we still see which have resulted in

staff's recommendations which are in the report in greater detail, and I will touch on these final four slides rather briefly.

The first is the constraint, the loss of petroleum assets that we've already discussed. And part of that has to do with a lease renewal process in the ports in southern California. So the staff recommendation is there is no, at this point, an opportunity for an applicant to appeal to another body if their lease is denied.

We're proposing that there be such a renewal appeals process created.

In the area of some of the lengthy delays in some of the petroleum infrastructure projects and the local opposition, our recommendations come in two groupings. One has to do with an attempt to try to maybe -- I don't want to use the work streamline -- but if there are opportunities to improve that permitting process for some of these significant delays can be reduced in their time.

And that's why you see a couple of recommendations such as the CEC acts as a permit facilitator. Could that be something that could be put in place that would improve the situation

and still address all the appropriate environmental and environmental justice concerns.

A one stop permitting process is also another suggestion. And this has to do mostly with petroleum infrastructure projects that cross multiple jurisdictions. This could be a marine facility but it is more likely a petroleum product or a crude oil pipeline.

The last two bullets have to do with, I think, greater outreach. Getting the information out, explaining to decision makers and stakeholders not only how the system works but the importance of it and what we see as changes to that system, and what we think would need to be done to accommodate that change without losing our ability to supply petroleum products to consumers here in California.

Marine access. I think we've adequately covered the first staff recommendations where we propose to monitor how MOTEMS is going, although we believe for crude oil there will be very minimal impacts, and for clean products more of an impact in southern California than in northern California.

The access to third party I mentioned

earlier. How we've seen new entrants into our market in California, which we think is good. We expect to see more new entrants into this marketplace, but there needs to be an ability for those entrants to be able to bring in those petroleum products.

And that has everything to do with storage tank capacity. And I think the projects down in southern California with Kinder Morgan and the projects at Kaneb terminals in northern California are facilitating better access for third party.

But there have been circumstances where third parties have been unable to gain access, and there have been suggestions through our meetings with numerous third party applicants that there could be some sort of arbitration mechanism that could be put in place.

We're not quite sure how that could be crafted, and we understand these are, there are a lot of business decisions going on with this type of commerce.

The final recommendation I'll touch on has to do with dredging. Adequate dredging is vital, this is more a northern California issue

because northern California marine terminals are adjacent to an active river system, depositing silt on a continuous basis, especially during the storm runoff period of time.

Dredging some of the low points is important to allow the vessels to continue coming in, and what we've seen over the last couple of years is the funding sources to perform and consistently schedule those dredging events has been limited and sporadic.

And so what we're recommending is that there be some firm commitment, especially to northern California dredging activities, to maintain minimum depths at the place Pinole Shoal, and that's up by Richmond.

And those conclude my remarks. I'd be happy to address any other questions you might have at this time.

COMMISSIONER BOYD: Gordon, I want to go back, on your last slide, the reference to dredging. There is, if I'm not mistaken, an infrastructure of organizations that are involved in permitting and who have a concern for dredging in the Bay Area, is there not?

Don't BCDC and other agencies have kind

of a formal structure to deal with this? So is it a matter of working more closely with that group and pushing their horizon out a little further with regard to future needs, rather than just to individual permits as they come in?

MR. SCHREMP: It's our understanding that -- BCDC is one of the important and critical elements in northern California -- it's our understanding that the organization both the Army Corps of Engineers and the inspecting industry, including the Coast Guard, they all do work very well together.

I think they understand the system, its' complexities and its' pinch points, far better than we do, and they do a very good job of forecasting what those needs are.

I believe what we're seeing consistently, it's not a point that they have not understood nor scheduled these dredging events, it's the money. It comes down to the money absolutely not being available to do all of the dredging that is anticipated and needed that these groups conclude must occur.

So that, as the last point, the money just isn't there to do all the work that's

necessary.

COMMISSIONER BOYD: Do these agencies, have they in the past run this issue up their chain of command? Is there anyone anywhere pursuing the question of federal funding, with vigor? Recognizing your competing against hundreds if not thousands of other people who wan their piece of the pie earmarked for them or what have you.

But do we have at least an active mechanism, a campaign to seek funding? Or is this something that's missing?

MR. SCHREMP: We, our staff, has not pursued an active campaign, but we understand that there are both state and federal legislators from California who are pursuing this issue.

And you're right, Commissioner Boyd, the pot of money available is being oversubscribed. These are for ports and waterways all throughout the United States and US territories, so there is not only the problem of the amount of money that's in the pot each year, but the needs and the prioritization of those needs.

So you're right, but we don't have an active campaign, but we understand that others in

the industry are trying to pursue those political means, yes.

COMMISSIONER BOYD: Okay, and then moving back one slide to potential restraints in marine access and the MOTEMS, which is a function of the State Lands Commission, your recommendation is to monitor the impacts of MOTEMS< which is fine.

But this is a sister state agency, and I would imagine just as a matter of a course of business between state agencies it would be fairly easy to work closely with state lands on that subject.

Are you suggesting an even more formalized approach to dealing with the MOTEMS and discussion of issues between various state agencies?

MR. SCHREMP: I don't believe staff is suggesting a more formal process. On a staff to staff basis we believe we have an excellent working relationship with the State Lands Marine Division. We have received very valuable and important information from this agency.

We have discussed in great detail their MOTEMS standard, and had meetings on this very

subject. And both are looking to the future to see what kinds of impacts actually fall out of this whole process.

But we believe that the amount of time State Lands Commission is allowing people not only to prepare their plan of how they will achieve compliance with standard but also the time period they're allowed to achieve compliance, both are I think quite flexible.

State Lands should be commended on that, so I think what we're going to be doing is continuing our strong working relationship on the staff-to-staff level, and then informing Commissioners when appropriate, when we think something that may be nearing that needs your attention.

But we would happy also to prepare periodic updates on progress towards compliance as well.

COMMISSIONER BOYD: Well, you recommend an arbitration mechanism, which is a pretty strong issue, and I just wanted to make sure that every rung on the ladder has been tried before you get to formalizing something like an arbitration mechanism, which could take years in and of itself

to arbitrate and establish. But, okay.

All right, thanks Gordon.

MR. SCHREMP: Thank you for your attention this morning as staff gave their presentation, and we have some other presenters who would like to come up. Some of them have some visual aids. I think we have some individuals from Baker and O'Brien here today?

COMMISSIONER BOYD: Gordon, while your trying to multi-task and prepare the next presentation for the audience, I just want to toss out a question for you and for any other speaker who might want to address it.

Last December the National Commission on Energy Policy produced their report on the broad subject of energy, just like this Commission's trying to address all facets of energy.

And in the area of petroleum, and their addressing of energy security and vulnerability of oil supply disruptions and price shocks, etc., the Commission recommended increasing and diversifying world oil production while expanding the global network of strategic petroleum reserves.

And I'm just curious as to whether anyone has detected any movement at all on this

recommendation or what it might even mean to California.

So, I just throw that out there, any comments you might have or any other speaker has, I'd be curious about.

MR. SCHREMP: Now, if we're referring to a strategic petroleum reserve for crude oil, this country does have one, it has been putting crude oil into it. But with regard to other countries, they do have their own SPR, and do fill them to varying levels.

And I have not heard in California of anybody looking at maybe expanding the strategic petroleum reserve for the United States into other areas, such as say California. I'm not aware of that, but industry may be better able to respond to that question.

MR. SIRUR: Good morning. My name is Dileep Sirur and I'm with the consulting firm of Baker and O'Brien. We are located in Dallas, and we are an energy consulting firm. And I'm here on behalf of Pacific Energy to quickly review with you a study I recently did for them, or we recently did for them, the title of which is The Outlook For Crude Imports Into California.

The scope of our work, as you can see on the screen, we looked at both historical data and future projections. We looked at 1995 through 2004 for all of PADD5 by source and disposition.

And the crudes that we looked at were A&S, California, and imports. And then we identified our estimated the imports by source region, and then we also did what we call a validation of our work by making an approximate assessment of what each refinery ran, so that we could maintain some kind of a balance.

For a projection we went about 15 years, and did the same thing in effect for PADD5, for these three crudes and imports, again by source region and by refinery and by California to validate our assumptions.

A couple of other things we did, and these we really briefly touched upon, and these are not in as much detail as they are supply and demand work that I'll be showing you in a minute, but one of them was we were concerned that our forecast increase in refinery runs maybe higher than the increase in demand for product.

So we did a quick check on some published information from the EIA, to assure

ourselves that that was not the case.

And the other assessment we did was -- and this is secondary -- there's a lot of crude being produced all over the world these days in increasing quantities called high ten crudes or high acids crudes.

And these crudes are especially difficult to run in most of the refineries in the world, but they do have a place in California, and I'll talk about this towards the end of this presentation, and so that may give us some opportunities here for bringing these crudes in as imports.

Now I'm going to talk about the key assumptions that we made in going through our analysis, and I think you'll note that several of them have differed from some of the assumptions that I saw in the previous presentation.

But these were our assumptions, and I think that we fully understand that assumptions can change.

But we started with A&S crude oil, which is one of the key crude oils coming in to PADD5. The current production of about 940,000 barrels a day, we assumed that would decline by about three

percent a year.

And that decline is consistent with what the state of Alaska is projecting. It's kind of divided into the first half of the period is about, under two percent a year. And the second half of the period is over five percent a year decline.

COMMISSIONER GEESMAN: Does that make any assumption about ANWAR production?

MR. SIRUR: I'll get to that in a second. Let me tell you, it does have an assumption, sir, about ANWAR. ANWAR is not included in there.

And we made a quick check about the schedule for ANWAR, which I'll show in the next slide, which leads up to conclude that it is unlikely to affect the forecast that we have here, at least through the period that we forecasted.

The other thing we did, and this is to get a distribution in the future, we looked at A&S as the production declined. We first provided it to Alaska, Hawaii and the Pacific Northwest. And we kept those requirements fairly steady. We didn't decline those requirements, and historically that's been the case.

And the reasons are, for most of Alaska's needs are inland, and you can't get any of the crude out there. Hawaii is less than 30,000 barrels a day, so we kept it there, we said that we may need it for some strategic reasons and just the difficult marine import logistics in the Pacific Northwest.

And another point, calcined coke production, and A&S is needed for calcined coke production. And much of that A&S that's used in the Pacific Northwest goes towards calcined coke in that area. It would kind of tend to keep A&S in that area.

After that, we said that the balance went to California, with some preference given to northern California. And I'll talk to that later as to why I did that, because we felt that the southern California refiners appeared more poised to be weaned away from A&S than the northern California refiners were.

And with respect to your question, sir, about ANWAR, in talking with the folks from Alaska just a few days ago, we heard that it wouldn't be expected -- if it was approved at the end of this year, by 2006, it would take about ten years for a

variety of things to happen before it even started up.

And once started up it wouldn't expect a sudden increase in volume, but a gradual increase in volume. So if it started up in about 2016 you wouldn't get your full volume until about 2021. So, given that we felt that, at least for southern California we wouldn't have that affect. We might have some small amounts show up towards the end of our period, but we didn't do a detailed calculation to that.

And as more definitive numbers come up I think we'll be looking at our analyses again.

With respect to California crude, based on what we see currently, we expect that production would decline about three and a half percent a year. And this is based on, we looked at the last two years, and it's declined four percent approximately both of these years, even in the environment of rising crude prices.

So we just felt, without doing a lot of research here into it, we just felt that the three and a half percent, based on recent history and no reaction to prices, would be a good number to use.

We also started off by saying that

Bakersfield and San Diego areas will always get California crude because they don't have access to any other crude. So we kept that flat. And the balance was sent to northern and southern California.

And we went through the same process, we gave somewhat more to northern California that to southern California. Again, this is a recognition of the logistical difficulty of bringing in imports into the Bay Area relative to southern California.

Now with respect to refinery runs, we increased it by, we started off by saying there was a capacity creep of about one and a quarter percent per year, and that's based on what we're hearing in the industries these days, both for the Gulf Coast and the west coast.

They're getting, with the profitability they're saying they want to improve their capacities as rapidly as they can. It may be a little bit too aggressive, but I've talked to some of the people in the industry and they seem to feel that it's, you know, not an unreasonable number.

We've also assumed, over the short-term,

over the next two to three years, that they'd be about 50 to 55 thousand barrels a day of capacity added in the near term, so we incorporated that as well.

Going back to that percent and a quarter per year capacity creep, that in effect also includes any additional expansions which we haven' been able to identify.

With respect to crude imports, they're currently being sourced from the Mideast, Latin America, a little bit from West Africa, and some from the Pacific Rim and some from Canada.

We kept those base levels for 2004, we started with that and just escalated them at the one and a quarter percent a year, and kept that mix constant.

And then, as we found an increasing shortfall of A&S in California crudes, we made them up with additional imports.

And just as a general rule, and we didn't do that in every instance, we replaced A&S typically with the Middle Eastern crudes, and replaced California crude generally with a combination of crudes from all the regions, with emphasis on Latin America and the Middle East and

some West Africa and Canada. And for the northern refineries the Pacific Rim as well.

Just a little point here. The Canadian crudes that are coming in, we've seen a significant increase in Canadian crudes coming in, and that's based on these synthetic crudes which will be pipelined from the Edmonton area to north of Vancouver and then shipped from a deep water terminal.

About two thirds of it would go to the Far East and about a third of it to southern California. And we expect that to start up about 2010, and eventually be around 120 to 150 thousand barrels a day coming in to southern California.

West African crude, the same thing. Mostly into southern California, high ten crudes which may be undesirable elsewhere, at about the same levels.

With those assumptions now, we've got some graphics to show how our history and our forecast would look. Our history is from '95 to 2004, and our forecast goes from 2004 to 2019.

The bars here start with import A&S from California, and a little bit of crude from Alaska very early in the history.

And we've kept the imports and the A&S next to each other because they represent the water-bound sources, both represent the water-bound sources. So the addition of them is what would be delivered by vessels.

And from that we took the imports and broke them out into where they were going. Again, the history and the forecast. As you can see, the import increase is dominated by California, and that's because of our assumption that the A&S requirements of the other regions are going to be relatively constant. But the bulk of it is in California.

Here we just tried to look at where these imports are going to come from. And again, if you look at the very source of the Middle East, West Africa, Pacific Rim and Canada, and then you look at the history and the forecast, the forecast is dominated again by the Middle East.

A steady increase in Latin America, and relatively small amounts but equal from all the other three regions.

COMMISSIONER BOYD: Could I ask you a question here before we go any further here. On the subject of Canada I've been pondering your

data through the last few slides on Canada.

And while I have no Canadian oil sense, one it's the first time I've heard reference to tan as a inhibitor or problem to be dealt with, and I have no basis to believe one estimate over another, but your estimate of Canadian imports is probably the lowest I've seen of recent date, with respect to what would end up coming into California.

And I have no basis to question your estimate, I'm just kind of registering that as an issue. Various representatives of Canadian provincial government and Canadian oil industry and pipeline industry, etc. etc. have visited here frequently and are always more optimistic.

Of course I realize that salespersons are always more optimistic. But nonetheless, this is the least amount of oil to come to California from Canada that I've seen before, and I note that for the record.

MR. SIRUR: That's a good point, but, you know, I questioned that, and when I talked with the folks who are, I believe, promoting these pipelines. And their current thinking is that by 2010 they'll be shipping about 400,000 barrels a

day, and about 250 of that will go to the Far East, and they'll get 150 into southern California.

And I did ask them why don't you move more into southern California? And I think it's a matter of quality, because these crudes that they expect to get through that is -- it's heavy, which we can deal with, but it's about 3, 3 and a half percent high in sulfur, which is quite a bit higher than the mix that we have here.

So that the heavier crudes that we seek would have to be balanced in such a way that the sulfur of crudes from Canada would be mitigated, so they themselves felt that the upper limit of their market was about 150,000 barrels a day.

COMMISSIONER BOYD: Thank you.

MR. SIRUR: Sure. Now this is on A&S, just looking at the history and future for A&S, and where it's coming from. The production is the top one there, and the disposition are the colors in each bar.

And again, we kept it very flat in the Pacific Northwest and Hawaii and Alaska, so the decline really occurs in California. And it's hard to see here.

Perhaps we'll just go to the next slide, which shows the forecast period. By about 2016 southern California stops receiving any A&S, and by 2018 northern stops receiving any A&S as well.

With respect to California crude production we did the same thing, history and forecast. And here you see that the requirements for central California are flat, declines in northern California are less steep, and the majority of the decline is taken in southern California. And this is just an extension of the same graph.

So what we see here, just a quick observation for PADD5, future imports will be dominated by imports. Imports will be over two million barrels a day, which is about 78 percent of crude runs. And that compares with just about 35 percent of crude runs today.

The Middle East will, is today and will continue to be the primary source, we're representing about half the import. And A&S crude oil runs, as I showed, will be eliminated towards the end of our forecast period.

But California crude production will still be there, even at the end of our period will

still be about 400,000 barrels a day.

And now we're going to focus just on southern California and northern California. We looked at PADD5.

And southern California, if you look at, this shows the three different types of crudes and the top of which is crude runs. Again, your imports are going up dramatically as California production drops and A&S supply drops.

And this, again, like for PADD5, these are the import sources for southern California historically and in the future. What you see here is the, again with the Middle East dominating, you see Canada right at the top there increasing. And that's the heavy Canadian crude that I talked about a little bit earlier.

The purple line on top, which shows West African crudes, and those we would expect to be, again they're sweet crudes, but they're very high in tan, which may make them compatible for our refineries here.

And Latin America will be a steady source, which will be increasing at some steady rate.

Now, just to justify or rationalize the

fact that we've declined A&S use in California so rapidly, one of the things we did was take a look at history for both southern and northern California, and this shows the use of A&S from '95 to 2004 for the two major players, and then for the rest of the refiners.

BP Carson Arco, before the year 2000, you can see their runs ran from 235 to, down all the way to a little above 160,000 barrels a day.

Chevron actually eliminated the use of A&S between '95 and '99, after having run almost 100,000 barrels a day in 1999. And we believe that this trend with respect to BP Carson will continue.

So, these are observations from what we've seen from California. Again, the supply will be dominated by imports, and by the end of our forecasting period imports will be over a million barrels a day, which represents about 90 percent of total crude runs versus a current level of about 41 percent of crude runs.

The Middle East will continue to be the primary source of imports, about half of crude imports will be from the Middle East. And which is kind of the way they're running right now as a

matter of fact.

And we talked about these new Canadian crudes getting up to about 130,000 barrels a day, the West African crudes to about 140,000 barrels a day, and Latin American will go up from its current level of about 160 to about 280,000 barrels a day.

We don't believe there will be any significant Pacific Rim imports into southern California.

And as we talked about a little bit earlier, the A&S use will decline steadily and we'll eliminate it in about 2016.

Let's talk a little bit more about the BP situation. They currently use about 85 percent of the A&S that's used in southern California. Their share of production is dropping faster than the average decline. They're not a future major player in Alaskan oil exploration. I think you're seeing several of the other majors still there but BP appears to have retrenched in there.

And they're big in the calcined coke business, particularly in the Pacific Northwest, where they have a big refinery, and to a lesser extent in southern California. And right now my

understanding is they're purchasing A&S crude, they don't have enough from their own system.

So as production drops I believe that they will preferentially run their A&S at the Pacific North refinery and get away from the calcined coke business or minimize the calcined coke business in the southern California refineries.

Now, as they've done in the recent past, they'll continue to substitute with impulse, which they seem to have done quite well. Other users are small and could I believe substitute without any problems.

With northern California, I'll go through this real quickly, it's a repeat of the same format. Here we show the crude oil supply with imports again starting to dominate with A&S in California production dropped.

These are the sources here of imports. What you see here is the Middle East dominating again, Latin America playing a significant role, West Africa and Canada, we don't expect them to play a significant role here but you see that top area in pink, that's the Pacific Rim crudes, who believe that some of high ten Pacific Rim crudes

could find their way into northern California.

This slide here is, again with respect to A&S supply and how people have declined the use of it. You see the same thing happening in northern California as it has been in southern California, so we believe that the elimination of A&S is not a significant challenge.

With respect to imports we see exactly the same story with lesser scale in northern California. So I won't read through all these percentages, but the point I want to make is that the Pacific Rim crudes could increase significantly since you can get some low sulfur high tan heavy crudes from there.

And A&S will decline at a slower rate in southern California because there may be some resistance to change that we didn't' see in southern California,k which we've listed out here.

And finally, California crudes will continue to play a significant role there with 200,000 barrels a day.

This is just a quick bar chart of central California, and you can see that central California is using a steady and increasing amount of California crude, which takes the California

crude away from the north and the south.

Now, that concludes the supply demand part, and I'll very, very quickly go through this last part here, since this is not really our projections.

But we looked through some DOE projections which said, the most recent ones for 2005 annual energy outlooks came out of that, these are not our projections, that the Pacific Region, of which 75 percent reaches California, the fuel demand will increase about 1.9 percent a year on an average basis through 2020.

So we thought that would probably be about the same for California. This projection has incorporated the growth of alternative fuels and increased mileage efficiency. And new car sales are increasing, but according to the DOE they're only 20 percent of new car sales by 2020.

Hydrogen fuel cell vehicles are going to account for a negligible amount of the population by 2020, and traditional gasoline and diesel vehicles, which make up about 97 percent of the population today, will only be lowered to a little less than 90 by 2020.

So really what we see out here is, well,

what we are testing for -- and let's just go to the second paragraph.

They're projecting refined product demand growth of 1.9 percent, which we kind of compared with our projected refinery capacity growth, which is, we calculate at about 1.6 percent, which is 1.5 percent a year in capacity creep and then the initial additions we made make it 1.6 percent, but it's still below that, so we kind of bested that and said that there would still be additional product imports needed, even with this growth.

And of course if oxygenates were eliminated from car gasoline you'd create another supply deficit which would, you would arguably need some more refining capacity.

MR. LOVELL: Can I ask, while you talk to me about it, in terms of your assumption for refinery creep at 1.25, you said refinery creep plus additions. What kind of additions are you assuming there?

MR. SIRUR: Well, additions would be -- and the way I look at refinery creep is just basically just try to get more and more out of the same equipment, without really adding any new

facility.

And since we don't know as we go into the future who's going to be doing what, we just up that by about a quarter percent to reflect some new additions over and above their being able to think of with their own existing facilities and going up at a one percent rate.

MS. JONES: Thank you.

MR. SIRUR: Well, I think we've talked enough about the issue of tan, so this first slide just describes it. And what it is, it's a measure of productivity, and anything above 1.0 makes it difficult to process in the typical carbon steel distillation columns and you need some stainless steel planning in them to be able to process them.

And most of the refineries in the world don't have it. And you can do it by chemical treating, but that's costly and has to be closely monitored and you don't want to do a chemical treatment and then find out you have a problem with your equipment, so nobody uses that and nobody plans on using that.

And it has become kind of a significant issue right now. There's a lot of crudes in this category that are being produced in West Africa,

China, Canada, and to some extent in Venezuela, and we've talked about that.

There is, according to some of the forecasts I've seen they could be increasing to well over more than half a million barrels a day in each area. And there's not much capacity to handle these crudes, so you could get some quality discount refiners who are able to use them could get some quality discounts.

And we believe that the refiners in California generally are well poised to exploit this potential opportunity. And here's what it is. If you look at California crudes, their tan level is comparable to the tan levels of the crudes in the world market, and I'll show you that on this next graph.

The first two crudes at Kern and Wilmington are going to be typical benchmark California crudes, and the other three, the second one is the Canadian crude that we were talking about earlier, and the other three are kind of typical crude that you see today from the Pacific Rim, from China and two from West Africa.

And if you look, the gravities range from about 13 to 22, and the sulfur quantities

range from about, some of them are sweet, from .2 all the way to 3, 3 and a half.

If you look at the bottom line there, the acid number, and look at Kern and Wilmington, and recognizing that 1.0 is the upper limit, they're pretty high in tan, 3.1, 3.2, and comparable to all the other crudes that we see on this list.

And once you get to a level above one you basically have to put in the equipment such that you can go to some very high tan levels. And because of the high tan of California crude many of the refineries in California are equipped today without any retrofitting, to be able to run high tan crude.

And a quick look says that, if you'll look at our second bullet here, that in southern California a little over 60 percent of the refinery capacity can handle it. In northern California a little under half. And all of the capacity in central California can handle it.

And of course the point is here that the West African and Chinese tan crudes are -- another point is that these West African and Chinese high tan crudes have some advantages in that they are

low in sulfur contents and will mitigate against the high sulfur contents of the other alternatives that we have as potential imports into California.

So that pretty much concludes my presentation. I'll be happy to answer any questions if anyone has any.

COMMISSIONER GEESMAN: I guess just the general observation that you're refinery creep number is substantially larger than that assumed by our staff.

MR. SIRUR: Right.

COMMISSIONER GEESMAN: Yours seems to be based on a more recent snapshot of historical experience. Given your professional judgment, looking at this industry going forward over the next 10 or 15 years, how far off do you think our staff may be?

MR. SIRUR: That's kind of hard for me to make that assessment, because typically what I would use both for, for any part of the US the rule of thumb in the past was one percent a year. And the reason I added a quarter on top of that was because one percent a year was just existing refineries increasing their capacities without adding substantial equipment.

I increased that by a quarter because of unknown additions that will be taking place. I think California in the past has been lagging in the increase in creep. I've heard numbers like 8/10th's, 9/10's of a percent. So I would say something like one percent or so would not be much different from my 1.25 percent, given that the differences are additions that have not been incorporated.

Which I think have been addressed by your reports as well.

COMMISSIONER GEESMAN: Well, historically though refining margins have been pretty poor. I'm not certain if we've experienced a secular change in that or not, but I know in the last 12 months they've been quite good.

You also see some major consolidation in the refining industry with tenders being made for other public companies. That would suggest, I think, that the economic motivation for greater refinery creep may be there right now.

MR. SIRUR: Yes, absolutely. In fact, I was at the NPRA annual meeting in San Francisco in March and I believe the CEO of Sun Oil, Jack Drosdick, who used to head up UDS at one time, in

LA, he gave a talk saying that the one percent capacity creep that we use now should really be examined.

I believe it's going to be higher in the future. I also recently saw a Q&A where a senior executive, a senior refining executive of a company which has a refinery in California said that their company expects about a percent creep everywhere, but they also expect to add 100,000 barrels a day of refining capacity by 2009, half of which will be on the West Coast. So there is a certain amount of optimism there.

COMMISSIONER GEESMAN: Thank you very much.

COMMISSIONER BOYD: Another observation. Your observation about the continued emphasis on the purchase of SUV's is unfortunately depressing for such a scenario as we've laid out here today. And the other observation is, in spite of I guess almost three decades now of allegedly national energy policy to reduce our dependence on foreign oil we just continue to drive that issue in the wrong direction more mightily.

So, we have quite a dilemma on our hands.

MR. SIRUR: Yes. Thank you.

COMMISSIONER GEESMAN: Thanks for your presentation. Gordon, what's next?

MR. SCHREMP: Our next speaker is Joe Sparano of the Western States Petroleum Association. And Joe, I believe you have a slide for a visual?

MR. SPARANO: Good morning, Commissioners and advisers and members of the audience. My name is Joe Sparano, and I'm President of the Western States Petroleum Association or WSPA. WSPA is a trade association that represents 26 companies that explore for, produce, refine, transport and market petroleum and petroleum products here in California and in five other western states.

I would like today to share WSPA's comments and suggestion related to the CEC's report on petroleum infrastructure needs.

First, on behalf of WPSA I'd like to let you know that we appreciate the comprehensive evaluation contained in the infrastructure report. We agree with what I believe to be the Commission's principal conclusion, and I quote "potential problems remain and further

infrastructure expansion will be required over the next 20 years."

That's a fairly broad outlook and broad comment, but I think either you believe that or you don't, and in this case I think that's a very sound conclusion that the staff of the Commission has drawn.

Overall we believe that to best serve Californians the state should focus on an energy policy and infrastructure upgrade program that supports the most constructive, the least disruptive, and most cost-effective energy supply improvement measures.

That includes keeping in place and doing no harm to existing petroleum infrastructure facilities, and adding new facilities where they're required to meet California's growing energy demand.

I have just two slides, and I think that they illustrate some of the reasons why the critical policy objective I just mentioned may be in danger of not being realized. That's a pretty strong comment, but I think what you'll see here bears me out.

This first slide is an aerial photograph

that shows Los Angeles Harbor basically as it looks today. It includes existing facilities that are highlighted in the white boxes, plus facilities in place today but perhaps in jeopardy of being forced out of their existing locations. These are highlighted in yellow and bordered in red.

The photo also shows more than eight million barrels of petroleum facilities that have been closed or eliminated from the harbor. These locations are, again, highlighted in yellow, but this time with a white border.

That's a pretty busy picture, and with all the yellow some concern about what might be happening down the road.

(technical problems with slide)

What I wanted to show you is a slide that delivers a copy of the Port of Los Angeles Community Advisory Committee, or PCAC, port master plan subcommittee. On April 12th they had a notice and agenda, there is a document in there, Item E, that shows the steering committee's current recommendations related to LA Port petroleum facilities.

And what I wanted to say is just take a

look at what the problems may be, and let me just see if I can do something here. . . . well, I'll just have to describe it.

That motion calls effectively eliminating all bulk liquid storage from the Port of LA. And the way it's phrased -- and this PCAC is a community advisory group that advises the Port of Los Angeles -- and their advice at this point, in the form of a recommendation, is that all bulk liquid storage that exists in LA Harbor, in certain locations -- which is basically all the locations where bulk storage is currently placed -- be relocated.

A major problem is that there does not appear to be much if any land available to relocate any of those facilities. In which case, if that was carried through, it would represent a significant loss of storage. And as you've heard all morning, the forecast is a need for more storage, not less. So we see that as a potential problem.

Another subcommittee of this PCAC group, the EIR subcommittee, on April 28 approved a motion -- I won't read it, I have it here in quotes -- but basically they've said no new

environmental impact reports or impact statements will be processed or approved until such time as the port planning staff brings to the PCAC a plan to have any and all new facilities meet a no net new emissions standard that the city of Los Angeles and the Mayor's Office have proposed.

That would effectively stop everything in progress now, and any projects that is proposed.

And I think those local policy initiatives have the potential to eliminate critical portions of our state's energy infrastructure. And in fact they need to be managed from a state perspective, or we may be facing real economic problems.

I have some specific recommendations and suggestions related to the report's key assumptions and recommendations. I'd like to share them with you now.

First, we feel it's very important for the CEC to stay engaged in energy infrastructure issues as the state's energy steward. We believe the Commission needs to offer perspectives on local decisions that impact whether the future energy needs of the entire state will be met.

In addition, WSPA feels that the State Lands Commission could also play an important role with the CEC in engaging as an energy steward in port areas. That makes a lot of sense to us since State Lands is the ultimate owner of the state's assets in those locations.

Second, the report's basic underlying demographic and economic assumptions may need to be re-evaluated, and there have certainly been some very good questions this morning about those assumptions. Let me go through them again.

The key assumptions, if I understood the report correctly and this morning's presentations, include lower population growth, lower levels of immigration, lower birth rates, higher fuel prices, and implementation of the state's new greenhouse gas regulations.

There is also a key assumption, an important assumption, that all existing marine infrastructure will remain in place. I think I've characterized them correctly, and that all underlies a forecast that says there will be less of a need than was perceived when the 2003 IEPR was produced, but still an important need.

Those assumptions that I just read you

all support the forecast of lower demand for petroleum products. If any of them turns out to be wrong then the demand forecast turns out to be wrong as well.

If that's the case, then the need to add new marine infrastructure and to protect existing infrastructure will be even greater than is reasonably called for in the report.

And even if these conservative assumptions are all correct, the gap between expected and state supplies of both crude and products and demand for those materials is still large.

We saw a slide earlier, whether we describe the Energy Commission's role as a facilitator, a process improver, permit completion specialist, or dispute resolution adviser -- and at this point I ran out of fancy names for that position, but facilitator probably does the trick -- the CEC is the state agency charged with ensuring that future demand is met with adequate supplies.

And from our perspective that includes preserving existing facilities and addressing the increasing role of imports, and I think that you

have done a fine job of that in your report.

WSPA supports the development of a best permitting practices guideline, which is one of your recommendations, one that capitalizes on permitting processes that streamline and expedite the ability to increase energy supplies without compromising environmental protection.

This guideline document should be developed in conjunction with local decision makers, because the folks who live around and near the affected areas will want to and should have a say in what goes on in their communities.

WSPA opposes policies that call for reducing demand for the cleanest burning petroleum fuels in existence by arbitrary amounts, and therefore reducing the potential for investment that has been talked about here this morning, investment in additional production capacity.

Although this report does not place as much emphasis on the CEC's previously stated policy of reducing gasoline and diesel fuel demand by 15 percent from 2003 levels by 2020, we continue to oppose any efforts to reduce demand while California's supply-demand imbalance increases.

Alternatively, we do support a petroleum plus approach to California's energy supply security future. This means increasing clean burning supplies while promoting a diversified energy portfolio, including funding research and development of cost-effective alternative fuel solutions that are not mandated or subsidized.

In fact, some of the WSPA members are already developing alternative fuels that will augment the state's existing clean energy supplies.

One point that was raised earlier I'd like to address. And that is that WSPA does not support government intervention in the marketplace, and therefore we question the benefit of establishing an arbitration mechanism for independent traders to resolve perceived access issues.

I think here's a classic case where the free market should serve as the arbitrator of arms length business transactions and not the state. And if I remember correctly, the Commissioners seem to offer the same cautionary note.

Assigning of LNG facilities on the West Coast is another critical piece of expanding the

state's energy supply infrastructure. The Governor has stated that he supports efforts to expand the state's energy capacity by permitting new LNG facilities in California or in cooperation with Mexico.

The CEC should follow through on the Governor's position and ensure that LNG facilities are given fair and robust consideration in the development of California's future energy infrastructure.

Finally, I do find it curious that the Commission is still recommending a statewide one stop permitting process for petroleum infrastructure. The report, in its body, clearly indicates that when stakeholders were polled, if you will, there really is no support base for this recommendation.

And the unfortunate part is that many of those stakeholders see it as an attack on local control. And our concern is really that, with that much local opposition, it could jeopardize the good work and the really fair analysis that the CEC has done on this part of your assignment for the 2005 IEPR.

Those are my comments for today. I want

to thank the Commissioners for giving me the opportunity to speak about the infrastructure report.

WSPA supports the Energy Commission in its efforts to ensure that every California customer continues to have daily access to an affordable supply of energy products. I think our state's well-being depends on it.

This is a set of products that does fuel the economy of California, and as Commissioner Boyd has said many times, this is a big economy, the fifth largest in the world, and it needs a lot of support, and we think that you have the means to help economic goals to be realized by the way you handle the development of future infrastructure here in California.

I'd be happy to answer any questions.

COMMISSIONER GEESMAN: Well, Mr. Sparano, I'm always amazed at the effort I have to go through to reconcile some of the almost visionary comments that your more enlightened members parade about with respect to either demand reduction or alternative fuels.

And some of your statements in our forum -- and I just presume that some of your more

fundamentalist members are holding the pen as your remarks are drafted -- but I do thank you for drafting them in that favored old time religion of belief in the free market.

I think as everybody in the room knows, the supply of petroleum in the world is a long way from the free market, and the presentations that we've heard earlier today suggest that in California in particular, with our increasing dependence on the Middle East, it's likely to get a lot less so related to the free market than it has been in the past.

But rather than just trade sermons with you, let me ask you -- you were in the room when we had the two different estimates of refinery creep, .5 percent from our staff, 1.25 percent from Baker and O'Brien.

Professionally, you come from the refining side of the business, and obviously you're exposed to a lot of the discussion of your members as to future refining investment plans.

In making an assumption as to what refinery creep is likely to be over the course of the next ten years, would you encourage us to be closer to the .5 or closer to the 1.25?

MR. SPARANO: Let me answer that question by not sermonizing, but reflecting on some of your earlier comments in the beginning of that question.

Most importantly, the members do not in fact share with me, or anyone else in WSPA, what their plans are for future growth or not. I think that's an important fact for everyone to remember.

There's a huge antitrust issue at work here, and very closely monitored and very religiously adhered to. So if I -- I guess that adds to the sermon, but those are the facts.

As far as the free market is concerned, my reference to free market always means without the intervention of government. And if there are still arms length transactions between producers and refiners, that's a free market. If there are arms length transactions between suppliers and marketers, that's a free market.

What we have seen repeatedly is that government intervention in that process has caused huge problems -- product dislocation, price spikes. ?The evidence is there.

You and I are probably contemporaries, you may have sat in the same gas line I did in the

station at Jersey City, New Jersey, waiting for gasoline in the early 70's, a direct result of price controls.

With respect to refinery creep, I don't know how to forecast that, Commissioner Geesman. I do have some observations though. Over the past years, refiners have been I think pretty adept at capturing incremental additions to their refining capacity.

They've done that in a number of ways. During turnarounds, when they have an opportunity within their permit limitations to add capacity, or simply to make their operations more efficient.

They do so with projects targeted to have both an efficiency and a conservation increment, as well as a capital return increment. And those will continue. I think we may have attacked the low hanging fruit in that category. The second area that is always ripe for refinery improvements is related to technology improvement and process control. If your process control equipment can examine the variables a thousand times every second as opposed to an individual playing around with pneumatic controls, then that's a good thing.

And that process technology improves every year. So on the surface I think there are arguments either way, and I would not want to venture a guess that would be different from either of the esteemed forecasters that you mentioned.

COMMISSIONER GEESMAN: Thank you very much.

COMMISSIONER BOYD: Joe, a quick question if I might. The fact that some of the positions of this agencies and others relative to the growth of the supply versus demand problem, and the need to reduce our dependence, has led the industry to constantly say that why would anyone be interested in California in a climate where government suggests we need to reduce over the long haul our dependence on petroleum and move more towards alternatives.

And yet we're having a debate about refinery creep, which is more or less just technological, but there's also the fact that over the past two short years several of the more independent refiners have seen fit to:

A, invest in California;

B, expand their refining capability; and

the most recent example of course is the Shell refinery in Bakersfield that was going to be shut down was picked up by an independent who now plans to make some investment.

So I realize the antitrust provisions you just mentioned make it hard for you to know what independent companies plans on -- maybe this is just more of an observation -- but it does seem the investment climate in California is not as dour or as poor as some people lead us to believe it is.

And -- because people do see, as this agency has said time and time again, that no matter how hard we push for alternative fuels and things like that, petroleum will be the dominant fuel for years and years and years to come. So why not meet the needs of the market.

So, I think that's just a statement to indicate that we sitting up here who have to try to be responsible to the people of the state, struggle with, you know, what is the right course of action to take, or who's view on what the future is going to be is the view that we need to follow.

And right now I struggle with the advice

or the comments that we get from the wide variety of the organizations.

MR. SPARANO: Just an observation in response to that. It has always troubled me why anyone would expect investors who are working with publicly traded companies and who are shareholders of publicly traded companies would find an outlook for an investment climate to be robust or rosy if a state agency, and more importantly because there is a proposal in our Legislature right now, to mandate that 15 percent or more, it's open ended at this time, of the products that we use every day today and that the state and federal government has mandated and refiners have responded splendidly to make cleaner and cleaner all the time, --

while we have a view that I think we share actually that petroleum and petroleum products will be around for some time to come and will be needed, why would anyone want to put more money into a system that could --

and we're not there yet, and that may be an answer to your comment about why someone would put more facilities in the past few years, why someone in Bakersfield may or may not be planning

to expand a refinery that they just purchased --

if there is a law on the books that says that demand, by state fiat, will go away, or by higher taxes go away, I think that's a problem for any rational investor to have to deal with.

And they'll make their own decisions as rational investors. But it's an issue that has to be dealt with.

On the other hand, I think I've made it very clear on many occasions that our members are deeply involved with and interested in producing alternative fuels. We just don't like conceptually and philosophically the idea of subsidies and mandates.

But our industry is throwing hundreds of millions of dollars into research on hydrogen fuel cells, on gas to liquids technology, and in solar, development of solar power.

I think those are good things. We've said repeatedly that we support those. we're putting our money where it needs to be. And perhaps the notion that they're haven't been a lot of investments --

I don't have the California specific numbers, I've been trying to develop them, but, I

actually can't go and ask each company for the data, we have to get it in a more blinded way.

Nationwide, the API has put together numbers that show that in the last ten years the industry, refinery, has spent one hundred billion dollars on refineries.

One hundred billion, with 48 billion of that going toward environmental regulatory compliance. And when you think about that, that's an awful lot of capital at the disposal of companies that already has 50 percent of it targeted to meet specific requirements.

So I think when you lay out the whole landscape there may be more factors that need to be considered, and hopefully with the industry looking at alternatives as the way of the future we will contribute to that as we've contributed to cleaner petroleum products over the last years.

COMMISSIONER BOYD: I'm sorry to have gotten us off so deep into tomorrow's subject. Today we're talking about infrastructure, but thank you for your comments.

COMMISSIONER PFANNENSTEIL: Joe, I just have a couple of questions. You didn't want to venture a guess on the refinery creep. But how

about on the demand estimate? We have a couple of different demand estimates over that period of time.

I think the high from Baker and O'Brien, about 1.9 percent. And the staff's is between 1 and 1.5 --

COMMISSIONER GEESMAN: Actually, Baker and O'Brien contributed that to EIA, in their 2005 Outlook.

COMMISSIONER PFANNENSTEIL: Yes, I'm sorry, they didn't do their own, they got it from DOE. Where are you in that?

MR. SPARANO: Commissioner Pfannensteil, it's hard to believe, but the lawyers will not allow, due to antitrust reasons, me -- despite 37 years experience working at some of the things you just questioned -- I can't have an opinion. And the reason is very simple.

There is a possibility that if I opine a specific demand forecast someone would say "aha, he got together with somebody and they talked about it and he knows something we all don't know."

So, with that caveat, which I must make, unfortunately, I would like to observe that my

comments were directed in a larger way toward observing that every one of the underlying assumptions in the Energy Commission's report -- I can't speak to Baker and O'Brien's because I don't know what each and every underlying assumption was, and I had to step out while Dileep was going through his presentation, so I might have actually missed it.

Every one of the Energy Commission's assumptions is what I would characterize and did characterize as conservative -- lower population growth, lower birth rate, lower immigration, higher price.

I don't have any reason to say any of those is not correct, just that when you look at them collectively they all argue for an atmosphere, an environment that will produce a lower demand.

But even in that your own staff has said, despite that prediction, also based on implementing the new greenhouse gas regulations, there still is an alternative. And they've taken in to good consideration that that alternative could be the one that comes to pass.

And the answer in each case is the same.

The need for imports, the need for infrastructure increases. And I'd really love to give you a direct answer, I just can't. That's the best I can do.

COMMISSIONER PFANNENSTEIL: That's fine. One other clarification that I'd like. You talked about the Port of LA PCAC group, and you said that they had an initiative out of no new EIR approved until, what had to happen? Existing facilities --?

MR. SPARANO: I wish, if you have your IT expert here. I actually brought the motion because I wanted to show you in their words, not mine, but my computer illiteracy is being broadcast live here to the entire world. I'm not able to get that up here.

But what it says is that the PCAC -- which has no authority except one of recommendation, but I think their recommendations are viewed with importance -- their recommendation, in the form of a motion to the Port, says that until the port planning group comes up with a plan that will result in any new facilities meeting Mayor Hahn's objective of no net increases in emissions, regardless of the

number and type of facilities that are installed, until such plan is developed to the satisfaction of PCAC, is the way it is worded, that no EIR shall proceed.

That's pretty tough. And I think, I don't know for sure, but my judgment is that perhaps some of the existing projects may get caught up in that as well, and I think some of Gordon's slides showed one or more of the projects that are currently being delayed for as much as a year because of re-consideration by some of the bodies in that port area.

The reason I referenced it and the reason I wish I could get the computer to show it is that that is a pretty frightening set of circumstances if it comes to pass. That means that facilities that are sorely needed won't be developed because they are not able to go forward in the very first portion of their evolution as a project, and that is the EIR.

And when you look at the tanks -- Commissioner Geesman, you asked a really perceptive question earlier about perspective on tanks -- one tanker that delivers A&S crude, 180,000 dead weight tons is typical, that delivers

almost 1.3 million barrels of crude in one arrival. One tanker.

I think your forecast has something like 500 tankers a year or more, Gordon, coming in to the Port of Los Angeles? A very large crude carrier, and if you believe I think everyone's forecast that shows decline rates of California produced crude, which are down to 42 percent of refinery runs, and A&S crude, which is now down to 22 percent of California refinery runs, if yo believe those decline curves, then you absolutely must expect that larger vessels carrying foreign imports will show up outside our harbors.

And some of those vessels, I'll pick a small one, 250,000 dead weight tons, VLCC, that delivers almost two million barrels of crude.

So you're looking at a real need for storage facilities, in the form of both tanks and therefore the land to put them on, loading arms and docks if they're not configured right now to handle some of the larger ships, and the pipelines that are called for in the Energy Commission's report, pipelines from the port locations to the main pipelines systems into the refineries, all will need some work.

So I perceive that if the group has the ability to stop that effort in its first stage, the EIR, that spells trouble for all of us.

COMMISSIONER PFANNENSTEIL: But yet, Joe, you mentioned that you would oppose the proposal for one stop permitting because you are concerned that that overcomes, or that has local opposition to it. And yet this is a local opposition right here that you're asking us to consider as being a difficult obstacle for you.

MR. SPARANO: I think, what I said was WSPA finds it curious that the Energy Commission still proposes one stop permitting in light of all of the stakeholder input. I didn't say that I opposed it.

In fact, some of our members like it and some of our members aren't so keen on it. So that leaves old Joe in the position of not having a position, which is a place I find myself more than I would like.

But Commissioner, I did word it carefully to reflect more of an observation than either a complaint or a disagreement. I'm not, I don' have a firm position yeah or nay. I think one has to take into account, as some of us saw in

some of the earlier visits to Wilmington and Martinez, that there's a fair amount of community enthusiasm if you will for having a big say in what goes on in their areas. I think that's a fair statement.

COMMISSIONER GEESMAN: Thanks, Joe.

MR. SPARANO: Thank you very much for giving me all this time.

COMMISSIONER GEESMAN: Okay, I'm going to go to the blue cards now. Jim Schepens from Oiltanking.

MR. SCHEPENS: There you go. My name is Jim Schepens, I'm VP of Commercial Development for Oiltanking. First of all, I'd like to thank the Commission and staff for raising this critical issue of energy infrastructure in California.

My purpose in speaking to you today is to inform the Commission and the staff about the merits of another crude project that was not mentioned in the staff report that is being developed at Berth 124 in the Port of Long Beach.

I am providing you, and Gordon just distributed it, a project summary that outlines the scope of the project, and identifies several of the advantages the project offers to our direct

customers, who are the refiners in California, and our secondary customers, who are the citizens of California.

Of those advantages mentioned in that summary I'm going to mention two today. Berth 124, if it's successful, will bring a new service provider to the state of California.

Oiltanking, for reference, is the second largest independent terminal company in the world. We have 70 terminals in 20 countries. We have about $750,000,000 in assets, and that includes about 65 million barrels of tank capacity around the world.

Our Houston terminal, for example, handles over 650,000 barrels per day of throughput. And included in that is 300,000 barrels a day of crude.

Marine logistics of liquid hydrocarbon is our business.

Oiltanking agrees with the staff's conclusion that only one new crude berth facility will be needed in southern California. The direct customer, the refiners, are going to decide what that project's going to be, and they'll make that final decision.

But the citizens of California are going to live with that decision for over 30 years, because that's the life of these terminals.

Berth 124 will ensure that two companies, not one, will own and operate non-refinery owned assets in the Port of LA. Incidentally, Berth 124 is well positioned to serve as Pacific Pipeline's marine terminal for their current marine structure. And we would certainly welcome them as a customer.

A second advantage of the Berth 124 project is that it will be linked to the LA Basin's current VLCC berth at BP's Berth 121. And it'll be linked by existing pipelines and by new tanks.

Linked docks, as opposed to independent docks, are synergistic. And by that I mean one plus one does not equal two. In the case of linked docks, one plus one equals two and a half or three, because of the efficiency you get with the docks.

Three refiners, now or in the future, will require VLCC capability, according to our conversations. And all three have access to Berth 121. By diverting smaller vessels now going to

121 to Berth 124, Berth 121 will become a VLCC priority berth that will have more than enough capacity to handle the refinery's future VLCC projections.

This linkage means that the existing infrastructure can be used more effectively, and lower investment will be needed to serve the market. The result is a lower cost to the customer.

My request today is that the Energy Commission and the staff recognize the Berth 124 project as an efficient and effective solution to southern California's marine crude logistics.

And I'll be happy to meet with the Commission or the staff at any time to go into any of the other advantages and any of the details of the project.

COMMISSIONER BOYD: Jim, I had a question or two.

MR. SCHEPENS: Sure, please.

COMMISSIONER BOYD: The docking facility would initially be designed to handle a Suez max?

MR. SCHEPENS: Correct. A Suez max is about 120 to 150,000 dead weight tons, capable of bringing, as Joe said, about one to 1.2 million

barrels of crude in one cargo.

COMMISSIONER BOYD: And that's got a draft of 55 feet?

MR. SCHEPENS: Around 55 feet, correct.

COMMISSIONER BOYD: And when you mention potentially upgrading to VLCC's?

MR. SCHEPENS: If we do that, what we'll do is, we'll do the basic platform design with a capability of upgrading it, but some of the added infrastructure we'll need to receive these won't be built until such time as needed.

COMMISSIONER BOYD: And the VLCC would be a 60 foot draft?

MR. SCHEPENS: Well, the current fleet of VLCC's primarily, nominally is referred to as a 76 foot draft. The new double hull group of vessels coming out of shipyards now are being designed at 62 to 66 feet, which is more than -- the Berth 121 berth can more than adequately handle a fully loaded new generation VLCC.

COMMISSIONER GEESMAN: And could you comment briefly on the potential expansion to Berth 26?

MR. SCHEPENS: Yeah, right now there's a peninsula, and if you face it, to the right side

of the peninsula is Berth 121, the front of the peninsula will be Berth 124, to the left side has been designated as Berth 126, which will be Mitsubishi's or Clean Energy Solution's LNG terminal.

If that terminal is built, obviously 126 will be used for LNG. However, if -- and there's opposition to that LNG project, as everyone knows -- if that project does not get built there's 30 acres of land and that berth site that will be available for additional expansion of tankage and dock capacity.

To give you an idea, we're going to put one and a half million barrels of tankage on about 17 acres of property, to give you a reference. So 30 acres, we could probably put another two and a half to three million barrels on.

COMMISSIONER GEESMAN: And could you update us on where you are with your permit applications?

MR. SCHEPENS: We are currently doing studies on vessel emission quantities to determine what ERC's we're going to require for the vessel emissions. By far, for pacific and for Oiltanking, the biggest issue in the permitting

with air emissions, is dealing with the vessel emissions, which are our responsibility.

The VOC's from the tanks are relatively minor compared to the SOX, NOX, and particulate matter coming out of the vessel stacks. We're doing that, we are in process of initiating the EIR process with the Port of Long Beach, they'll be the lead agency on that.

And we've made contact in a meeting with the AQMD talking about their emissions issues.

COMMISSIONER GEESMAN: Great.

COMMISSIONER BOYD: Will the new generation of tankers that you referenced be more capable of cold ironing, i.e. electrical plug-in possibilities?

MR. SCHEPENS: Good question. I think if they get enough forewarning that the shipyards can create pathways for the cables they probably could be. If the Port of LA is the only port in the world that requires it you have to wonder if it's very cost-effective from the ship owner's standpoint.

The only one that has cold ironing capability today are the BP vessels, because they have to come to the Port of LA.

The other thing to be aware of , Craig Smith of BP made a presentation to the California Air Resources Board. And in that he said the vast majority of crude ships do not benefit from cold ironing. They have steam boilers that run pumps.

Only the bigger ships that use the engine propulsion to run the pumps can benefit from cold ironing. So cold ironing is not a panacea for the crude vessels.

COMMISSIONER BOYD: Thank you.

COMMISSIONER GEESMAN: Thanks, Jim. The next blue card is Dave Hackett from Stillwater.

MR. HACKETT: Thank you. I was busy re-writing in the middle of all that.

Thanks, Gordon. Good morning, Commissioners and staff, ladies and gentlemen. My name is Dave Hackett, I'm the President of Stillwater Associates, and I'm here today to make some comments on the staff's paper.

A quick overview of Stillwater Associates is certainly not required for Commissioners and staff, but for everybody else, I wrote this to sort of validate our position in all of this.

We've been doing energy policy work with

the California Energy Commission and other state governments for some time now. And to some degree I almost feel like I'm a godfather of this process, because we started in 2001 with the strategic fuel study, and we finished in 2002.

And so one of the recommendations that we had coming out of that SFR study was to look at this whole permitting issue and the whole issue of infrastructure.

Since then we've done a number of other things. The most recent, that you haven't heard about, is a study on boutique gasolines for the American Petroleum Institute.

And then recently, on the commercial side, we've been working with Oxbow Carbon Minerals, the Los Angeles Export Terminal and Oiltanking on a combined clean oil and crude oil terminal in the Port of Los Angeles.

I think in general, relative to the report, we concur with most of the staff's analysis. That is to say, we agree that infrastructure is highly utilized and is high cost.

How do you quantify what that utilization and high cost is to consumers? Well,

the tankage market in Los Angeles runs about a penny a gallon over alternative markets, it's actually more than that.

A penny a gallon doesn't sound like much, but for gasoline, jet fuel and diesel consumers that works out to be a quarter billion dollars a year.

We agree that the trend in infrastructure capacity is mixed. Some new capacity has been built on existing permits. Other projects are struggling to get permits. And as you heard earlier, some existing terminals are being pressured to shut down.

We don't see refinery expansions keeping up with demand growth, and I want to talk about our assumptions on supply and demand in a moment, and we concur that the CEC needs to have a role in ensuring that the petroleum infrastructure grows to meet the demand.

On the supply side, this bar graph shows gasoline production since 1992. And where the blue areas, classified as other gasoline, that's conventional gasoline, or in the case today that's the gasoline that goes to Arizona, Nevada and Oregon.

The kind of purple gasoline was oxygenated, that's gone out now. And then the balance of it is reformulated gas, and you can see that the gasoline production looks like it's topped out.

In fact, according to your data, gasoline production peaked in 2002 at 1,088 barrels a day. And then there's been a really teensy decline over the last two years.

So far, for 2005, year-to-date gasoline production looks to be about one percent ahead of 2004, so that's good news.

Not shown in here, so I put together a quick draft while we were listening to the discussion about assumptions on growth, of your same data for annual crude oil runs.

And if you look at those data, there's sort of a sawtooth that goes upwards. And so the planner always gets a brain cramp about which data points he wants to start with and exactly what the slope of the curve is.

So I think that, that quick look at the data which I can't show you right here, would say that staff's assumption on half a percent and Baker and O'Brien at one and a quarter are

certainly within the boundaries of a reasonable person's guess at what production is going to do.

From our perspective, the work that we've done, we have not looked at those in the current time frame. I think our last projection was about a year old.

But a year ago we thought refinery creep was on the order of .6 percent, and that light product demand was similar to the EIA's number of 1.9 -- and that's with strong diesel and jet fuel demand growth off a small base, and then gasoline at probably one and a half.

It's going to be interesting to see for example, what $2.50 gasoline has done to demand. We're looking forward to seeing those numbers when they come out.

As far as comments and recommendations are concerned, when staff first approached us in 2001 on the Strategic Fuel Reserve Report one of the things that we asked for was an expansion of the scope to look at all the factors that dealt with supply, not just the inventory problem.

And one of the things we said to staff, I remember this very clearly, we're going to have to look at the refinery expansions. If you want

more supply you're going to have to expand the refineries.

And the staff's response was "well, we can't look at that." So what that says to me is that staff's come a long way in the last four years, recognizing sort of the magnitude of the problem and that there are probably a number of things that need to be done in order to improve supply.

When I read the report, one of the things that occurred to me was I didn't know how much a billion gallons was. And depending on assumptions, demand's going to grow to 2015 by either two billion gallons or six billion gallons. Well, how much is that?

A way to think about it is that a billion gallons is about half a refinery's worth. So two billion gallons is another refinery, and six billion gallons is three refineries.

Now, given that it's not likely they're going to be built here in California. we should probably be paying attention to where this product is coming from.

What I liked in the report is, I think staff was trying to encourage a new and additional

computation as far as traders and independent terminals are concerned. I think that's good.

As far as crude oil is concerned, we concur with staff's assumption there's probably only going to be enough crude oil demand import growth for one terminal in LA. And we don't see the VLCC issues being particularly critical, given what new building VLCC's are going to look like as far as draft.

Again, this isn't covered in the report, but we think you should continue to ask for the (?) waiver. However, I do have to point out that 10 percent blending methanol will increase the gasoline pool. Now, you can't do that today, given the predictive model, but I support the air board's continuing look at the predictive model.

And then, this one is not covered at all, but as long as I've got the podium I'm going to say this. You all ought to ask Chevron to eliminate Unocal gasoline paths. Pat Perez was testifying before a congressional hearing in Long Beach on Monday, and he did a great job, and he said that the paths are costing consumers one to three cents a gallon, and so that's' half a billion dollars, ballpark, is what that cost

consumers in California.

So, I think you all ought to write him a letter and ask him for that.

COMMISSIONER GEESMAN: Now, you think we ought to ask that question before the deal closes? Because that translates into not so much asking Chevron as asking those who have to pass muster on the deal.

MR. HACKETT: It'll be interesting to see how this progresses, because we've sort of pointed this out to other folks as well. And I don't know if Chevron's going to step up on their own, or how they want to play it. But it certainly is our suggestion.

Okay, in summary --

COMMISSIONER BOYD: You mean all those hours I spent testifying in Washington in front of the FTC are for naught, perhaps? It would be a good thing if they were, I'm just being facetious of course.

MR. HACKETT: Yeah, but that's correct. In summary, it doesn't make any difference. With the demand growth projections that you have, I mean, whether or not alternative fuels come in or not, the fuels demand's going to continue to grow.

Our projections from a year ago on Arizona and Nevada were Arizona three percent a year on gasoline, and Nevada four and a half. And I see we've got Arizona in the audience today, and so we might ask him to chime in on that as well.

Assuming that refinery expansion opportunities are limited, and so what we've been doing so far is quarreling over small differences in very large numbers. The bulk of the growth is going to be supplied by water board imports, and most of that's going to come into the ports at Los Angeles and Long Beach.

It's clear that petroleum facilities will have to be expanded to accommodate those imports, and new solutions are going to have to be found to solve the problems of getting permission to build.

And that concludes my remarks.

COMMISSIONER GEESMAN: Dave, if we zero in on issues surrounding Port of Los Angeles, Port of Long Beach, we go through the staff numbers, should we back out the various Chevron-related numbers because of their facilities in El Segundo?

MR. HACKETT: Well, Chevron's facilities are primarily tied to the buoy in Santa Monica

Bay. So the bulk of their crude oil comes in through that facility. And so, in general, we've done these similar analyses.

We've got that one that looks at the Port of LA and Long Beach with and without Chevron, that's correct.

COMMISSIONER GEESMAN: Thank you. Okay, my next blue card is Dominic Ferrari, Pacific Energy Partners.

MR. FERRARI: Good morning, Commissioners. Thank you again for having these workshops, we really do appreciate your persistence in conducting these workshops to examine what we believe is a very serious issue.

And today I'm not here to talk about supply demand and the need, you've heard enough of that. I'm really am here just to give you an update on the Pier 400 project that's been mentioned today and in the report.

I'll be very brief, since it's almost lunch time, but I did want to update you folks.

There was a question earlier, this morning, about takeaway capacity, and I can't remember if it was Commissioner Geesman or Boyd, but takeaway capacity is very important in any

marine terminal.

We're going to have to build tankage to land these tankers. And when that oil is in that tanker it needs to move to refiners quickly, because we've got another tanker coming in.

Pacific Energy owns a major distribution system in LA, and we own nine million barrels of tankage. So part of our project, in dealing with customers, is to bring them in, build the terminal, and provide this takeaway capacity.

So I wanted to mention that this morning, because I didn't know if it was clear, about the importance, and the fact that it does exist, and we own it.

We decided in this presentation to bring an artist's rendering. We've brought some engineering map previously, and they're pretty boring. This is our latest artist's rendering of the Pier 400 project.

I'm pretty sure you folks are familiar with the Pier 400 landfill, which is shown on the right hand side. And you can see the tanker berth along the, what they call Faith Sea.

There's the proposed tanker coming in to its berth. This is the Pier 400 land mass that

was built in the last ten years, and as others have said, most of it is containers, but they did reserve areas for petroleum here.

And this area right here, we have what we call a surge tank, some storage, and some large pumps to take off the ship. And then along here is a big 42 inch pipeline that comes over to an area here where we'll have this tankage to receive the marine vessels.

And again, I think I've mentioned a couple of times that I've been up here, Pier 400 was originally designed for this specific operation. It was not designed for containers. And unfortunately the industry didn't jump on the opportunity ten years ago.

But what I wanted to emphasize one more time, and it's very important is -- this is Angel's Gate right here, and the Pacific Ocean obviously.

What I mean by designed is, when these big vessels come in, they come in through Angels Gate and boom, they're right there.

Right now, tankers come in and they have to navigate in through here, or here, or whatever, and when you get these vessels in navigating on

inner harbor there's more of a chance for an accident.

And more importantly this is where the population is. You're talking about the PCAC and the population, they don't want these operations next to them, that's why they want to move facilities out here.

So this is the farthest site available to do this operation, keep it away from the public, and keep this operation from the inner harbor.

We sincerely believe that this is the major asset of this facility, and basically why Pier 400 was designed the way it is. So I hope that helps a little bit, those engineering drawings are hard to follow.

Again, I've talked about this before, we do have 81 feet of water, that's very deep. Louisiana is the only other port that has deeper water, so this is a major selling point. Basically our customers can bring in any ship that they want.

And when oil companies have options, what that means is they go out and buy the cheapest crude, and normally that's passed on to

the customer. So what this is is optionality, and it should result in lower prices.

We're looking right now at about 4 million barrels to handle this operation, but again this is connected to a major pipeline system that we own that has another 9 million barrels connected to it. So this is just the front end of a larger system that we plan to operate.

We're permitting this thing for 250,000 a day, and basically we think we hit that right on the nose with what we've seen in the marketplace.

Our latest investment figure is in the range of $150 to $180 million.

I'm going to skip this slide because it's just more of what you've already heard, so I'd like to skip it.

What I'm really here for today is just to give you a status update, which is the next slide, of our project.

As you all know, a major project like this has to go through the NEPA and CEQA permitting process, and we're well underway. We started this process last year in July with the scoping meeting, and of course there's a lot of work just to get to a scoping meeting.

But we are very happy with the progress of the CEQA. Not only the CEQA, the Port of LA, and the Army Corps, but all the agencies that have to be involved in this project, like the Air Resources Board, like State Lands, everybody's coming together and working hard. We're very happy.

We expect a draft EIR to be issued in October of this year, that's our current expectation. And this is pushed back a little bit from the last time I was here, but we're fairly confident this will happen in October.

I can't tell you how many meetings we're holding with community groups. Again, this is tacking on to the discussion this morning with PCAC. And not only them, but a lot of other community groups. I think our business fellows meet probably every day with community groups to keep them on board.

One thing we're going to do, within the CEQA process, that I don't think other folks do is we are going to have some technical forums in the fall. And what we want to do is have technical forums to address specific questions that the public has.

What is a tanker, what is double hull, what's an inert gas system? There's a lot of technicalities that need to be discussed because we're going to build obviously the safest operation we can but you really can't get through that without, we believe, having technical forums. We're going to do that in the fall.

The status on the NEPA and CEQA is to finish it this year and hopefully get certification in 2006 plus or minus. And with that type of approval we basically would be looking to start up in July, September of '07.

Now, in order to do that, to get approval here and startup here, obviously we have to have a lot of things going in parallel. And we are. I mean, we don't have an EIR yet or a permit, but we just started for instance our preliminary engineering on the project. This is costing a lot of money.

But there's a lot of things that have to be done in parallel to meet this time frame, and we're doing that.

While I'm on this slide, I left out a couple of very important things. It was mentioned earlier that the air issue is probably one of the

biggest issues on this project. And I'm happy to say that we have purchased 85 percent of the emission reduction credits required to build this project.

We will offset the emissions that come from the vessels, and we're doing that by purchasing NOX, SOX, PM-10's on the open market. And that 85 percent has cost us over $10 million to date.

So it's a difficult project, in terms of having to spend that kind of money up front, but the point I'm trying to make is those emission reduction credits are very scarce, and you have to take advantage of that market and we did. And we feel very good about that.

This all has to do with the no net increase. A lot of the issues that were talked about this morning are being addressed in this process.

Community considerations. Again, this was talked about this morning so I'm not going to spend a lot of time other than again, we are out there having, participating in meetings, calling our own meetings. We're taking this head on, we have nothing to hide.

We're meeting with the leaders of PCAC, the leaders of the community, and we're addressing their issues head on.

One of the issues that did come up was the use of union labor, and we have agreed to go ahead and use union labor to build the project, and that's, that kind of helped our efforts.

On environmental, I think I mentioned most of these items -- in fact, I've hit all of them, so I'm going to skip this slide.

On safety, I've talked about the remote location. MOTEMS has been mentioned several times this morning, and obviously we would do that. We're going to build this facility to be a world class facility in terms of safety.

And finally, this is my last slide, commercial status, this is where the rubber meets the road. Valero Refining has signed a 30 year deal with us. This is a binding commitment for 50,000 a day. They've basically baseloaded our project.

We're underway with basically everybody else. And right now we expect to be fully subscribed by the time we start building this thing. I, obviously I can't get into names and

amounts, but I wanted to give you a feel for the interest in the refining community for this project.

And we are an open access facility, so w are talking to everybody and giving everybody a chance to participate in the capacity available on this project.

And that's my report, I appreciate the opportunity again to give you an update.

COMMISSIONER GEESMAN: Thanks, Dominic. As of right now, what level of storage do you envision starting up at?

MR. FERRARI: Commissioner, we're planning on four million barrels of new storage, and to be quite frank with you, that'll do it. I mean, we don't need to build anything more. And it's mainly because, again, that four million barrels will be connected to an extensive pipeline system that's connected to other tankage, so it's all being designed as one big system.

COMMISSIONER GEESMAN: And that full volume then would be where you're artist rendition showed, tank farms?

MR. FERRARI: Yes sir. Yes, Shields Tank Farm, that's where the four million barrels

would be located, the new four million barrels.

COMMISSIONER GEESMAN: Thanks very much for your presentation.

MR. FERRARI: Thank you.

COMMISSIONER GEESMAN: My last blue card is Mohsen Nazemi. I want to thank you for being here, Mohsen, and appreciate the degree to which you have participate din our process.

MR. NAZEMI: Thank you very much, sir. Thanks for the opportunity to be here and comment on the staff's assessment for petroleum needs.

First off, I want to commend staff for the good work they've done. And I guess to set the stage, I want to say we support many of the recommendations that staff has made in this report, and I will get to the specifics.

But before doing that, I think it's important to set the stage for why South Coast is interested in this process. As you know, South Coast is one of only two areas in the United States that is designated as extreme ozone non-attainment.

As a result, as you know, we have much bigger hurdles that we have to jump over to achieve clean air. A population of over 15

million people, residents breathe this dirty air. And our hopes are that we can work towards clean air so that we can meet the ambient standards.

We regulate over 26,000 facilities. These are stationary sources that are in our four county jurisdiction. It's all of Orange, and then the major metropolitan areas, Los Angeles, Riverside, and San Bernardino Counties.

I want to point out that, based on your staff's report, it shows that we have more than half the refineries in the state located in South Coast area. That's over a million barrels of refining capacity.

Refineries happen to be the top seven largest sources of sulfur oxides, from all of those 26,000 facilities. They're seven of the top 11 largest sources of nitrogen oxides, and ten of the top 15 largest sources of volatile organic compounds. And that's why we're interested in this process.

In addition, the petroleum infrastructure also covers other facilities, such as terminals. And again, based on your staff's own report of the 46 marine terminals, the largest portion of crude oil and petroleum products

received are received at Port of Los Angeles and Port of Long Beach in the South Coast area, the only area where you can receive the VLCC tankers.

And part of the reason we're interested in the marine terminal activities is not just because of liquid bulk, but almost 170 percent of the top 350 emitting facilities in South Coast have equivalent emissions at the port. So port, by itself, is the largest source of emissions in the South Coast area.

We talk about reducing emissions. And as we look at the forecast for sources of emissions in our area, almost every source of emissions is going down. The only source of emission that is not going down is the ships.

And part of it is because they're federal sources, and we don't have much control over it. But it's interesting, when we talk about low sulfur diesel, Air Resources Board CARB diesel, and things like that, so we talk about 15 parts per million.

Under the international treaty that becomes effective this month, as we speak, there will be a limit on the sulfur content of marine diesel that ships can burn. But that limit is

45,000 parts per million sulfur.

Now, granted, some of the ships in our area probably burn less, but there's also opportunity to declare the West Coast as a sulfur emission control area. But even if that happens the limit is still going to be 15 parts per million sulfur.

So you can see that there is a large interest on our part to look at these sources and consider what kinds of activities are happening at the ports and the other refineries that I just mentioned.

So, having said that, I want to come back to the staff assessment. I think I want to reiterate that we definitely support better coordination between state and local agencies as well as the federal agencies that deal with these types of petroleum infrastructure.

We support permit streamlining as, again identified in your staff's report. We have pioneered some permit streamlining measures that ultimately got worked into the state law, and we are continuing to do that.

So I'm, permit streamlining is meant for our agency, and I welcome any suggestions and any

efforts that anybody has to address permit streamlining.

to that extent, again, we support the best permitting practices. And we'll be happy to work with you to develop that if you'd like us to participate in that program.

Having said that, we do have a continuing concern about the proposal about one stop permitting. The staff report actually shows that almost none of the stakeholders support the one stop permitting, yet we continue to see that.

I saw something new in this recent report, which was one stop permitting for projects across jurisdictional boundaries. And I guess I was a little puzzled as to what that really means.

The initial read of that is that if it crosses different cities or different counties, then I say well, maybe that doesn't apply to stationary sources. But again, when I hear staff recommendations or presentations they say "well, that might apply to marine facilities, or that might apply to refineries."

So I guess we're not clear on what that really means. But having said that, I want to make sure that the Energy Commission understands

that permitting plays a key role in the compliance work that we do, and together permitting and compliance is the cornerstone of our stationary source emission reduction commitment under the state implementation plan.

Those are commitments that we have to meet, imposed on us by federal law.

Just looking at petroleum infrastructure, if another agency was to take that role, we receive several hundred permits a year. So, just want to give you an idea. I know you do all the licensing for power plants, and I don't know how many applications you get a year. But think about this, several hundred permits a year, just in the south coast area.

The other thing, that I was a little bit surprised that it was left out of the staff report is that, our agency is the designated agency under the federal program for issuing Title V permits. We have the responsibility for implementing that program.

The delegation requires development and implementation of the Title V program, and if any other agency wants to do that they have to submit a program to EPA, they have to get approval for

that.

And, consistent with that, approval is based on full capability to enforce the program. Not just to issue the permit, but to be able to enforce that program.

So I want to ask you to keep that in mind, even with the power plant licensing program that's in place for the last couple of decades.

As the Title V program came about, we have to issue another permit, and that's an overlay on what you do.

with respect to the new projects that were discussed here, I would not take more time to go over them, but I just want to point out, in addition to the Paramount Refinery we have issued permits to Conoco Phillips ultra-low sulfur diesel project.

We heard about the Pacific Energy Partners Pier 400, Kinder Morgan -- one point I want to bring up, and maybe that's one pint you can look into as part of best permitting practices -- with Pacific Energy Partners we have agreed under memorandum, a very unofficial memorandum of agreement, that we're going to work on this project before they even file applications. So

our staff is already working on this.

And the reason we're doing that is we want to make sure that the CEQA, NEPA document that is being prepared is consistent with what we believe should be in there, so we don't have to wait for them to finish that document and then say "whoops, you didn't look at this part of that part." And I think that's something you can maybe recommend.

Kinder Morgan project, we have just gone beyond public comment. Public comment period os closed, we have received some comments, and we're in the process of addressing and responding to those public comments.

You hear about LNG. We have the only onshore, so far, LNG project. Sound Energy Solutions, onshore LNG terminal in Port of Long Beach. That's 320.000 cubic meters of full containment storage capacity. We also have an LNG fueling facility at that site if it gets built.

And then you heard, the most recent project we've been discussing, with Oiltanking, regarding a new crude oil terminal in Port of Long Beach, at Berth 124.

And again, we're working with project

proponents in innovative ways to build these projects and at the same time address the emissions issues related with port facilities.

And there are a variety of ways that they can do that. Cold ironing is just one aspect of it. The others are looking at innovative ways that they can reduce emissions from ships as they come into the harbor and as they dock in the ports.

There are a number of ways that they can do that. Onshore pumps is another way to minimize the load on the ship pumps when they're unloading. If there's a pipeline and they have to unload crude from a ship and run it through this pipeline, if you have an onshore pump that would give you a boost then all you have to do is run those engines to run it from the ship to that pump, not throughout the pipelines to the tanks.

These are some of the work we are doing, and I want to bring us back to the recommendations. I think the coordination of the efforts by local, state, and federal agencies can be done. And a good example was the green team that was formed during the past energy crisis, where the state had a coordination role, a

facilitator role, whatever you want to call it.

And maybe the recommendation for one stop permitting can be exercised if there are true cross-jurisdictional boundary projects, such as pipeline projects, where there are a number of cities or counties involved on the project, and would give the Energy Commission a better role in being the lead agency in CEQA preparation or permitting, because that would bring all those agencies together. But we don't see that role for stationary sources.

The other point that was brought up today, and in the report, was terminal closure. And I think the Energy Commission can play a stronger role in addressing that.

That brings me to the other part of your responsibility, where you look at the electricity outlook projections, and that's part of the same IEPR report, you have projected that there will be a shortage of electricity in the southern part of the state if we have one in ten summer temperature by anywhere more than 1,000 megawatts.

Yet, we have about 800 megawatts of existing power plants that have just shut down because of lack of contracts. So if there is

anything you can do with the electricity I think you should also look into the same aspect of the terminal closures, see what the Energy Commission can do to prevent some of these or provide incentives.

And in closing I want to say that the port emissions are really not a minute problem, they are a big problem. The same as electricity, the same as the fuel supply demand problem.

And one tanker is equivalent to having 12,500 trucks on the highway. So you need to look at how emissions from these port activities impact the local communities and be able to come up with either incentive programs or innovative programs where they can be addressed so that this opposition can meld with building new projects or expanding the facilities.

And with that, I appreciate the opportunity, and would be happy to answer any questions.

COMMISSIONER GEESMAN: Thank you once again, Mohsen. I appreciate the thoughtfulness of your remarks, and in response to your initial comment about the best practices work, I think we would be remiss if we didn't work quite closely

with the South Coast District in assembling that work.

So I can assure you it will be our intent to work very closely with you and your staff in pursuing that.

As it relates to marine terminals in the Port of Los Angeles, Port of Long Beach, I wonder, have you done any assessment as to the relative contribution of pollution coming from the ports that can be attributed to the petroleum import activities compared to containerized shipping?

MR. NAZEMI: Personally I have not done it, and I'm not 100 percent sure whether our agency has done that work or not. But the one comment that I could make related to that -- and again I'd be happy to offer our assistance to work on that because I know we are very involved in the no net increase nd port advisory groups and all of that --

but the one comment that I do want to make is that, although there's probably a much greater contribution from container ship terminals than marine terminals, in terms of the number of ships coming out,

but my understanding -- and it's very

limited so take it with a grain of salt -- is that when the ships come into port, the maneuvering and coming to the berth emissions are greater from container ships.

But once they are at the port, their marine terminals have greater emissions associated with the ships because of the unloading of the liquid fuel.

And that, as you heard from some of the previous speakers, if they're especially running on steam engines or steam pumps, coal ironing is not going to help.

So you're still going to have those emissions coming during the unloading of the product. Whereas with the containers you don't have that type of emissions.

COMMISSIONER GEESMAN: I wonder if this is an area that we can make some analytic progress in in the month's ahead. I think that we've got forthcoming, somewhat later this summer, an environmental assessment of petroleum infrastructure, and I'd certainly think that we would benefit by anything that your staff has done that would provide a comparative contest with container shipping.

And certainly as you look forward to the next couple of decades and the likely technological improvements, it's important from this Commission's standpoint that these petroleum facilities not be demonized to the extent that many in the local community do, and that their impact be seen in an appropriate context that takes into consideration all of the things that are going on within the port.

And we, hopefully, as a better informed regulatory entity -- and I'm speaking primarily I think of your district and the ARB -- can make some enlightened decisions as to how to best clean up the air. I think it's been our Commission's belief that these petroleum facilities will continue to play an important role in the economy of the state.

There's no question that they ought to be made as environmentally protective, if not benign, as possible, but that their very existence shouldn't really be called into question at the interest of political demagoguery or alarm waving that doesn't choose to take into consideration the specific facts.

So, I would appreciate it if we can get

our staff together with yours and review what emissions data is available to us for analytic purposes, assessing all of the sources of emissions within the port.

MR. NAZEMI: Commissioner Geesman, I agree with you 100 percent, and in fact during our earlier meetings with your staff on petroleum performance, environmental performance in ports, that was an issue that I brought up that we need to look at all the source emissions associated with marine terminals as well.

And it's a fair question to say how does that compare to the other mobile source emissions associated with port activities. So I think that's a good suggestion.

COMMISSIONER GEESMAN: Well, we've got a lot of work ahead of us, and I certainly appreciate your continued involvement.

MR. NAZEMI: Yes, we keep holding these marathon workshops we've got to do, so we've got a lot of work. Thank you.

COMMISSIONER BOYD: Mohsen, I just want to add my appreciation to those remarks of Mr. Geesman. And I want to say, I think I speak for all of us, that we would want to work with any air

district that has ports in its jurisdiction, the Bay Area as well, on a package for the future.

As you probably know, the Air Resource Board's recent annual symposium, the Haggensmit symposium, was dedicated to goods movement, for freight movement, were obviously a large component of that.

I know that South Coast, both were there, and I think Darryl and I were there for this agency.

And that put a lot of information on the table about the subject, the issues, the problems, the control technologies and what have you, and is a reservoir of information that I'm sure all of us can use in working on the subject.

So, you obviously know, you have a lot of empathy, understanding, and what have you up here at this agency with regard to the need to clean up the air in the LA area, and everywhere.

So we do want to work as partners, don't want to dwell on turf as much as some people have. And the staff has courage, they keep bringing the issue up in the face of such opposition.

But I think it continues to focus attention on the fact we need to do something

about it, and hopefully everyone can work together to bring this to a speedy resolution.

You referenced the green team, and I'm very familiar with that. But, pulling people together was advantageous, and I think that the same goes for this subject as well. So thank you.

COMMISSIONER GEESMAN: Thank you, Mohsen. I have exhausted my supply of blue cards. Is there anyone in the audience who cares to address us?

MS. WOLFE: Hello, staff invited me to appear today in case you had questions about pipeline safety.

My name is Nancy Wolfe, I'm Chief of Pipeline Safety Division at the California State Fire Marshal's Office, and staff thought that you might appreciate a brief overview of what our program does, and how we interact with the federal government.

We have provided you with a short document today, and we have also provided a graph that shows the trends in pipeline accidents, which have been declining over the last ten years.

Now, while the graph shows the numbers declining we would caution that the impact of

those accidents is still very significant, primarily because of the population growth and the fact that the existing pipelines, while they started out in the earlier days to be in rural areas, the growth of urban areas has grown to encompass many of them.

So the impact of pipeline accidents has become more significant as the years have gone on even though the numbers have declined. The number that you're seeing there have leveled off at around 15 per year.

The figures are representative of those statistics that are reported to the federal Office of Pipeline Safety, which the threshold is $50,000 in damage or any kind of injury or death.

The state legislature provides that the state Fire Marshall has exclusive regulatory authority over the safety of pipelines. We're talking about hazardous liquid pipelines.

The Public Utilities Commission has a like program that covers natural gas.

The State Fire Marshal's jurisdiction is about 6,300 miles of pipelines in California. That represents 1,300 miles of interstate and about 5,000 intrastate.

That distinction is important because, by federal law, the state's Department of Transportation's Office of Pipeline Safety has jurisdiction over all pipelines in the United States.

Under federal law the Office of Pipeline Safety can recognize or certify state programs for intrastate regulatory activities. State Fire Marshal has held that certification since 1984.

In addition to that, federal law recognizes that the Office of Pipeline Safety can act as an agent for the federal government in regulation of interstate pipelines. State Fire Marshal has held that interstate agency since 1987.

The difference between the activities we have over inter- and intra- are minor in nature. State regulations are not normally applied to interstate pipelines, and the citation and penalty decisions that are made for any kind of violations that are noted are handled by the Office of Pipeline Safety, whereas on intrastate pipelines we handle everything.

There's an administrative civil penalties division for that. In 2004 State Fire

Marshal investigated six interstate and eight intrastate accidents, including the tragedy in Walnut Creek where five workers were killed when a gasoline pipeline was ruptured by an excavator installing a municipal water line for the East Bay MUD.

In addition to the investigation activity of actual accidents we spend, this year we spent hundreds of hours responding to potential problems on pipelines, most of them related to the unusual weather activities in southern California, where we had landslides, spot flooding and other kind of potential problems of pipelines.

We also have had an increase over the last few years with the responses that we make to potential problems with pipeline that are resulted from train derailments. Many of the pipelines in California re run concurrent with train tracks in the easements for railroads.

So any kind of derailment runs the risk of damaging the pipeline that's buried beside it. We recognized that the continued unobstructed operation of pipelines in California is very important.

We take our role as regulators very

seriously, but like the Energy Commission and our other sister agencies we recognize that our job also is to help California grow, and to keep the businesses going, and that it's vital to keep the pipelines in top operation.

So, I don't want to expend a lot of time here. I would be more than happy to answer any questions you have regarding our program.

We coordinated somewhat with Gordon and his group when we do have accidents or when a pipeline is shut down, so they are aware of how long the pipeline is controlled.

So if you have any questions I could answer I'd be happy too.

COMMISSIONER GEESMAN: Your graph, with respect to incidents, 1994-2004, does that combine both intra- and interstate state?

MS. WOLFE: Yes it does.

COMMISSIONER GEESMAN: Any appreciable difference between the two?

MS. WOLFE: No, I don't think we have an appreciable difference, although the problems are not related to whether, by and large, they are inter- or intra-.

COMMISSIONER GEESMAN: And are you

involved in the initial permitting or routing of pipelines?

MS. WOLFE: To a minor extent. We are not a permitting agency. Our feeling is that a pipeline is either safe and it operates or it is not safe, and we close it. So there are not permits that are issued by our office.

But we do have some significant difficulties with the delay permitting activities from other agencies.

COMMISSIONER GEESMAN: What do you mean by that?

MS. WOLFE: When we recognize that a pipeline has an anomaly that needs to be evaluated, most of the time the pipeline needs to be exposed, and in order to do that there has to be permits.

While we're not the agency that delivers the permits, the delay in issuing the permits compounds the risk that an anomaly would have.

COMMISSIONER GEESMAN: Yeah, our staff has pointed to the Kinder Morgan line through the Suisun Marsh as an example.

MS. WOLFE: That was one of the issues. There's also been, over the past few years,

problems in southern California with a company's inability to cover their pipelines, protect their pipelines, when it was exposed in a desert area because of a sand fly environmentally sensitive area.

And we are supportive of that, but we're also very concerned at the exposure and the risk that that delay involves.

COMMISSIONER GEESMAN: Thank you very much.

COMMISSIONER BOYD: Another quick question, if you would. Do you have any concern about the age of the California pipeline infrastructure?

Is there any reason to be more concerned now with a lot of these facilities having been in the ground a long time?

Or are we just in a maintenance mode more often and that's just going to be fact of life?

MS. WOLFE: In most cases it's a fact of life. Pipelines are very much like automobiles or washing machines, you know, if you've got a car that you maintain well, and you keep any parts that are damaged replaced or repaired, then your

car's going to run a long time.

And it could almost run indefinitely. If your vehicle is used hard or it's not maintained properly it wears out faster.

Now that's a very simplistic answer to your question, because there's also a lot of factors that impact the age of a pipeline, such as your type of product, the corrosive nature of the product, the external corrosion, just -- there's a whole variety of things that could happen to the pipeline.

But by and large, age is not the critical determining factor.

COMMISSIONER BOYD: Okay, since you mentioned, you know of criteria, you know of elements or factors that would maybe accelerate pipeline corrosion in some areas versus others, does that affect your inspection policy or requirements?

MS. WOLFE: The inspections that are done are routine, done by our inspectors are on a routine basis. But the pipeline operators are also required to have their own inspection program, their own integrity management program which we oversee the elements of that.

We inspect every time we do a comprehensive inspection of the facilities. They do internal inspections of their pipelines either by hydrostatic testing or by smart testing by internal computerized devices.

So the monitoring that's done to keep track of internal corrosion as well as external problems, is extensive.

COMMISSIONER BOYD: Thank you.

COMMISSIONER PFANNENSTEIL: Just one question. To what do you attribute this rather dramatic decrease in reportable incidents over the decade? Are there a couple of major factors that are driving the safety?

MS. WOLFE: I think two of the most important ones probably are the one call system is being more highly utilized, and the companies are looking at integrity management more proactively, going after potential anomalies, and they are stopping leaks before they are happening.

COMMISSIONER GEESMAN: Thank you very much.

MS. WOLFE: Thanks.

COMMISSIONER GEESMAN: Anyone else in the audience that would care to address us?

Okay, I want to thank everybody for your participation today, and hopefully we'll see some of you tomorrow.

(Thereupon, the workshop ended at 12:39 p.m.)

CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Workshop; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 25th day of May, 2005.